

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

Reserve
1.96
R31F



FEDERAL - STATE - PRIVATE
COOPERATIVE
SNOW SURVEY and WATER SUPPLY FORECASTS
for
COLORADO and NEW MEXICO

UNITED STATES DEPARTMENT of AGRICULTURE...SOIL CONSERVATION SERVICE
and
COLORADO AGRICULTURAL EXPERIMENT STATION,
STATE ENGINEER of COLORADO
and STATE ENGINEER of NEW MEXICO

Data included in this report were obtained by the agencies named above in cooperation with the Bureau of Reclamation, U.S. Forest Service, National Park Service and other Federal, State, and private organizations.

AS OF
APR. 1, 1961

UNITED STATES DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE

To Recipients of Cooperative Snow Survey and Water Supply Forecast Reports:

The climate of the cultivated and populated areas of the West is characterized by relatively dry summer months. Such precipitation as occurs falls mostly in the winter and early spring months when it is of little immediate benefit to growing crops. Fortunately, most of this precipitation falls as mountain snow which stays on the ground for months, melting later to sustain streamflow during the period of greatest demand during late spring and summer. Thus, nature provides in mountain snow an imposing water storage facility.

The amount of water stored in mountain snow varies from place to place as well as from year to year and accordingly, so does the runoff of the streams. The best seasonal management of variable western water supplies results from fore-knowledge of the runoff.

A snow survey consists of a series of about ten samples taken with specially designed snow sampling equipment along a permanently marked line, about 1000 feet in length, called a snow course. The use of snow sampling equipment provides snow depth and water equivalent values for each sampling point. The average of these values is reported as the snow survey measurement for a snow course.

Snow surveys are made monthly or semi-monthly beginning in January or February and continue through the snow season until April, May or June. Currently more than 1400 western snow courses are measured each year. These measurements furnish the key data for water supply forecasts.

By relating snow survey measurements taken over a period of years to spring-summer runoff during the same period, relationships have been developed which make it possible to forecast seasonal runoff several months in advance of occurrence. In order to make a forecast, once a forecast relationship has been developed, the maximum snow water content at previously selected key snow courses is usually entered in the forecast relationship. More accurate forecasts are often obtained when other factors such as soil moisture, base flow and spring precipitation are considered and included in the forecast relationships.

Listed below are the Federal-State-Private Cooperative Snow Survey and Water Supply Forecast reports available for the West which contain detailed information on snow survey measurements, atreamflow forecasts, reservoir storage, soil moisture and other guide data to water management and conservation decisions.

PUBLISHED BY SOIL CONSERVATION SERVICE

<u>REPORTS</u>	<u>ISSUED</u>	<u>LOCATION</u>	<u>COOPERATING WITH</u>
RIVER BASINS			
COLORADO AND STATE OF UTAH	MONTHLY (JAN.-MAY)	SALT LAKE CITY, UTAH	UTAH STATE ENGINEER AND OTHER AGENCIES
COLUMBIA	MONTHLY (JAN.-MAY)	BOISE, IDAHO	IDAHO STATE RECLAMATION ENGINEER
UPPER MISSOURI AND STATE OF MONTANA	MONTHLY (FEB.-MAY)	BDZEMAN MONTANA	MONT. AGR. EXP. STATION
WEST-WIDE	OCT. 1, APR. 1, MAY 1	PORTLAND, OREGON	ALL COOPERATORS
STATES			
ALASKA	MONTHLY (MAR.-MAY)	PALMER, ALASKA	ALASKA S.C.D.
ARIZONA	SEMI-MONTHLY (JAN.15 - APR.1)	PHOENIX, ARIZONA	SALT R. VALLEY WATER USERS ASSOC. ARIZ. AGR. EXP. STATION
COLORADO AND NEW MEXICO	MONTHLY (FEB.-MAY)	FORT COLLINS, COLORADO	COLO. AGR. EXP. STATION COLO. STATE ENGINEER N. MEX. STATE ENGINEER
IDAHO	MONTHLY (FEB.-MAY)	BOISE, IDAHO	IDAHO STATE RECLAMATION ENGINEER
NEVADA	MONTHLY (FEB.-APR.)	RENO, NEVADA	NEVADA DEPT. OF CONSERVATION AND NATURAL RESOURCES DIVISION OF WATER RESOURCES
OREGON	MONTHLY (JAN.-MAY)	PORTLAND, OREGON	ORE. AGR. EXP. STATION OREGON STATE ENGINEER
WASHINGTON	MONTHLY (FEB.-MAY)	SPOKANE, WASHINGTON	WN. STATE DEPT. OF CONSERVATION
WYOMING	MONTHLY (FEB. JUNE)	CASPER, WYOMING	WYOMING STATE ENGINEER

Copies of these various reports may be secured from: Head, Water Supply Forecasting Section
Soil Conservation Service,
209 S. W. Fifth Ave., Portland 4, Oregon

PUBLISHED BY OTHER AGENCIES

<u>REPORTS</u>	<u>ISSUED</u>	<u>AGENCY</u>
BRITISH COLUMBIA	MONTHLY (FEB.-JUNE)	COMPTROLLER, WATER RIGHTS BR., DEPT. OF LANDS AND FORESTS, PARLIAMENT BLDG., VICTORIA, B.C., CANADA
CALIFORNIA	MONTHLY (FEB.-MAY)	CALIF. DEPT. OF WATER RESOURCES, SACRAMENTO, CALIF.

FEDERAL-STATE COOPERATIVE
SNOW SURVEYS AND WATER SUPPLY FORECASTS

for

COLORADO RIVER, PLATTE RIVER
ARKANSAS RIVER AND RIO GRANDE
DRAINAGE BASINS

Issued

April 1, 1961

Report Prepared By

Jack N. Washichek, Snow Survey Supervisor
and

Don W. McAndrew, Assistant Snow Survey Supervisor
Fort Collins, Colorado

United States Department of Agriculture
Soil Conservation Service
and

Colorado Agricultural Experiment Station
Fort Collins, Colorado
and

State Engineer of Colorado
Denver, Colorado
and

State Engineer of New Mexico
Santa Fe, New Mexico

Issued By

Kenneth W. Chalmers
State Conservationist
Soil Conservation Service

J. E. Whitten
State Engineer
State of Colorado

Sherman S. Wheeler, Director
Colorado Agricultural
Experiment Station

S. E. Reynolds
State Engineer
State of New Mexico

WATER SUPPLY OUTLOOK FOR COLORADO AND NEW MEXICO

AS OF

APRIL 1, 1961

SNOW COVER

THE FIRST OF APRIL SNOW SURVEY MEASUREMENTS INDICATE ONE OF THE LARGEST SNOW PACK INCREASES ON RECORD FOR THE PAST MONTH FOR MOST OF THE TWO STATE AREA. THIS MUCH ABOVE NORMAL SNOW FALL LAST MONTH INCREASED THE SNOW PACK FROM 60% OF NORMAL TO 80% GENERALLY IN COLORADO, WITH THE UPPER RIO GRANDE AREA SHOWING ONE OF THE GREATEST INCREASES. NEW MEXICO ALSO SHOWED A LARGE INCREASE FROM 50% OF NORMAL TO NEAR NORMAL SNOW PACK CONDITION. IF THIS MUCH ABOVE AVERAGE SNOW FALL PATTERN CONTINUES IT WILL TEND TO ALLEVIATE ANY SERIOUS WATER SHORTAGE THIS SUMMER SEASON.

SOIL MOISTURE

SOIL MOISTURE CONDITIONS HAVE NOT CHANGED APPRECIABLY SINCE THE FALL READINGS. MOUNTAIN SOILS IN THE TWO STATE AREA ARE DRIER THAN NORMAL AND ALSO BELOW THAT OF LAST YEAR. THIS SITUATION WILL TEND TO REDUCE STREAM RUNOFF THIS SEASON AS THESE SOILS MUST BE FILLED WITH SNOW MELT WATER BEFORE RUNOFF WILL OCCUR. MOST OF THE VALLEY SOILS ARE REPORTED AS FAIR TO GOOD.

RESERVOIR STORAGE

WATER STORED IN RESERVOIRS IN THE TWO STATES IS SIMILAR TO LAST YEAR BUT GENERALLY BELOW THE 1943-57 AVERAGE. RESERVOIRS IN THE SOUTH PLATTE DRAINAGE ARE SIMILAR TO LAST YEAR AND JUST SLIGHTLY ABOVE NORMAL. FOR THE REST OF THE TWO STATE AREA, STORAGE WATER IS ABOUT 50% OF THE 1943-57 NORMAL, WITH EXCEPTION OF THE RESERVOIRS ON THE PECOS AND CANADIAN DRAINAGES WHICH ARE FILLED TO CAPACITY.

STREAMFLOW

THE APRIL THROUGH SEPTEMBER STREAMFLOW WILL BE SLIGHTLY BELOW NORMAL IN THE TWO STATES. THE EXTREMELY HIGH SNOW FALL EXPERIENCED DURING THE PAST MONTH SHOULD ALLEVIATE ANY CRITICAL WATER SHORTAGES THAT MIGHT HAVE OCCURRED PREVIOUS TO THESE STORMS. SOME WATER SHORTAGES COULD STILL EXIST ON THE LOWER REACHES OF THE STREAMS.

WATER SUPPLY OUTLOOK

THE MAP ON THIS PAGE INDICATES THE MOST PROBABLE WATER SUPPLY AS OF THE DATE OF THIS REPORT. ESTIMATES ASSUME AVERAGE CONDITIONS OF SNOW FALL, PRECIPITATION AND OTHER FACTORS FROM THIS DATE TO THE END OF THE FORECAST PERIOD. AS THE SEASON PROGRESSES ACCURACY OF ESTIMATES IMPROVE. IN ADDITION TO EXPECTED STREAM-FLOW, RESERVOIR STORAGE, SOIL MOISTURE IN IRRIGATED AREAS, AND OTHER FACTORS ARE CONSIDERED IN ESTIMATING WATER SUPPLY. ESTIMATES APPLY TO IRRIGATED AREAS ALONG THE MAIN STREAMS AND MAY NOT INDICATE CONDITIONS ON SMALL TRIBUTARIES.



TABLE OF CONTENTS

WATER SUPPLY OUTLOOK BY MAJOR WATERSHED AREAS

WATERSHED 1 - SOUTH PLATTE RIVER WATERSHED

Describes water supply conditions in Fort Collins, Big Thompson, Longmont, Boulder Valley, Jefferson, Teller-Park, West Plum, Cherry Creek, Kiowa, West Arapahoe, West Adams, East Adams, Platte Valley, Southeast Weld, and West Greeley Soil Conservation Districts.

WATERSHED 2 - ARKANSAS RIVER WATERSHED

Describes water supply conditions in Lake County, Upper Arkansas, Fremont, Custer County Divide, Fountain Valley, Black Squirrel, Horse-Rush Creek, Central Colorado, Turkey Creek, Pueblo, Bessemer, Olney Boone, Cheyenne, Upper Huerfano, Stonewall, Spanish Peaks, Purgatoire, Branson Trinchera, Western Baca County, Southeastern Baca County, Two Buttes, Bent, Timpas, Northeast Prowers, Prowers, West Otero and East Otero Soil Conservation Districts.

WATERSHED 3 - RIO GRANDE RIVER WATERSHED (COLORADO)

Describes water supply conditions in Rio Grande, Center, Mosca, Hooper, Mt. Blanca, and Sanchez Soil Conservation Districts.

WATERSHED 4 - RIO GRANDE RIVER WATERSHED (NEW MEXICO)

Describes water supply conditions in Lower Cebolla, Abiquiu-Vallecitos, Eastern Taos, Lindrith, Coyote-Canones, Espanola Valley, Pojoaque, Jemez, Santa Fe-Sandoval, Tijeras, Cuba, and Edgewood Soil Conservation Districts.

WATERSHED 5 - DOLORES, SAN JUAN, AND ANIMAS RIVERS WATERSHED

Describes water supply conditions in San Miguel Basin, Dove Creek, Dolores, Mancos, LaPlata, Pine River, and San Juan Soil Conservation Districts.

WATERSHED 6 - GUNNISON RIVER WATERSHED

Describes water supply conditions in Delta, Gunnison, Cimarron, Shavano, and Uncompahgre Soil Conservation Districts.

WATERSHED 7 - COLORADO RIVER WATERSHED

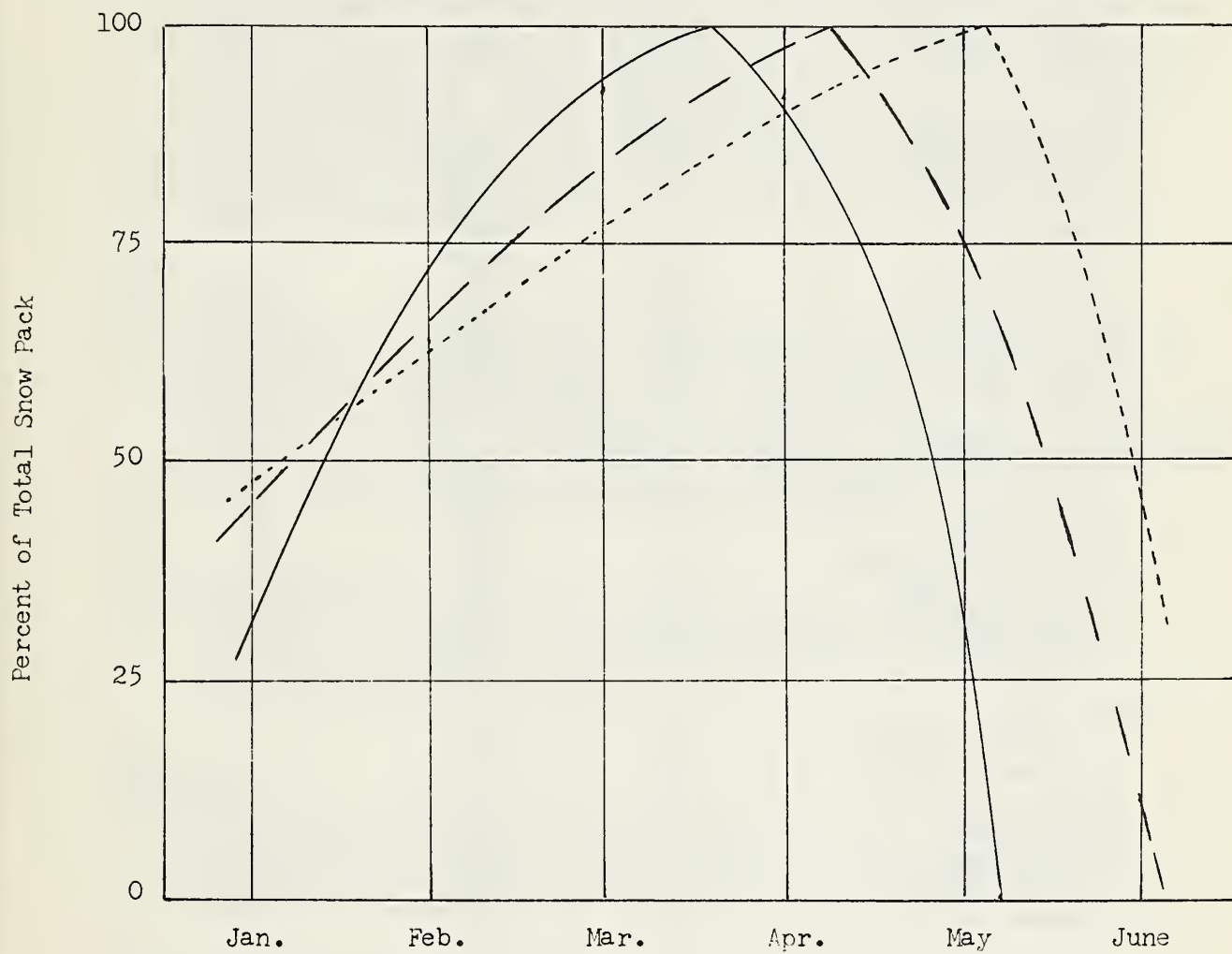
Describes water supply conditions in DeBeque, Lower Grand Valley, Bookcliff, Rifle Silt, Eagle County, Middle Park, Glade Park, Upper Grand Valley, Plateau Valley, South Side, and Mt. Sopris Soil Conservation Districts.

WATERSHED 8 - YAMPA, WHITE AND NORTH PLATTE RIVERS WATERSHED

Describes water supply conditions in Yampa, Moffat, West Routt, East Routt, North Park, Upper White River, Lower White River, and Douglas Creek Soil Conservation Districts.

SNOW WATER ACCUMULATION IN

COLORADO and NEW MEXICO



Elevation 8500' - 9500' —————
 Elevation 9500' - 10000' - - - - -
 Elevation 10000' - + - - - - -

COOPERATIVE SNOW SURVEYS
SUMMARY OF SNOW MEASUREMENTS

WATERSHEDS	No. of Courses Averaged	Years of Record	Water Content as percent of 1960 Avg.	
ARKANSAS RIVER				
Arkansas River	10	5-25	86	88
COLORADO RIVER				
Colorado River*	29	9-25	71	69
Roaring Fork	7	11-25	65	59
Plateau Creek	4	21-24	81	78
Yampa River	8	5-25	72	65
White River	2	24-25	74	70
Gunnison River	13	10-25	78	79
Dolores River	4	12-25	79	85
San Juan River	5	19-25	70	78
Animas River	7	10-23	70	91
PLATTE RIVER				
Laramie River	2	24-25	77	86
South Platte River**	2	19-25	83	86
Poudre River	7	10-25	75	86
Big Thompson River	4	9-23	81	75
St. Vrain River	3	9-23	86	58
Boulder Creek	2	10-23	82	70
Clear Creek	5	10-25	84	79
RIO GRANDE				
Rio Grande (Colo.)	11	5-25	70	82
Rio Grande (N.M.)	12	9-24	106	120
Conejos River	3	11-24	66	62
Chama River	5	11-25	74	75
Pecos River	3	11-22	138	181
Canadian River	3	19-24	121	117
Alamosa River	2	10-25	74	88

* Above Glenwood Springs

** Above Denver

WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE
SOUTH PLATTE RIVER WATERSHED IN COLORADO

as of
APRIL 1, 1961

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

SNOW COVER

SEVERAL MAJOR STORMS THAT OCCURED LAST MONTH HAVE INCREASED THE SNOW PACK BY 20%. THE SNOW OVER THE BASIN NOW AVERAGES ABOUT 80% OF NORMAL. SNOW AT THE LOWER ELEVATION AND ON THE PLAINS WAS EXTREMELY HEAVY DURING MARCH. DENVER EXPERIENCED ONE OF THE HEAVIEST MARCH SNOWFALLS ON RECORD. THE LOWER ELEVATION RECEIVED A MUCH HIGHER PERCENTAGE OF SNOWFALL THAN THE UPPER REACHES. THE UPPER SOUTH PLATTE AND CLEAR CREEK DRAINAGES ARE THE MOST IMPROVED AREAS AND ARE NOW APPROACHING NORMAL.

SOIL MOISTURE

SOIL MOISTURE CONDITIONS AT THE HIGHER ELEVATIONS HAVE NOT CHANGED MUCH SINCE THE FALL READINGS. NONE OF THE NINE STATIONS ON THE SOUTH PLATTE DRAINAGE INDICATE MUCH SOIL MOISTURE. THE HIGHEST READINGS ARE INDICATED ON BOULDER CREEK, BUT THESE COULD BE CLASSIFIED ONLY AS FAIR. VALLEY SOILS ARE NOW REPORTED AS EXCELLENT. RECENT STORMS HAVE IMPROVED THE CONDITION CONSIDERABLY.

RESERVOIR STORAGE

CARRYOVER STORAGE ON THE SOUTH PLATTE REMAINS SLIGHTLY BETTER THAN USUAL AND WILL BE AN EXCELLENT SUPPLEMENT TO EXPECTED STREAMFLOW. STORAGE ON THE BIG THOMPSON PROJECT IS SLIGHTLY BETTER THAN LAST YEAR.

STREAMFLOW

STREAMFLOW IS EXPECTED TO BE ABOUT 85% OF NORMAL FOR THE BASIN. THE TRIBUTARIES RANGE FROM 74% OF NORMAL ON THE ST. VRAIN TO 87% ON BIG THOMPSON RIVER AND BOULDER CREEK. NO SEVERE SHORTAGES ARE EXPECTED, HOWEVER, THERE MAY BE SOME LOCAL SHORTAGES.

AVERAGE WATER CONTENT IS COMPUTED ON 15-YEAR BASIS (1943-57). ALL YEARS OF RECORD ARE USED WHEN A SNOW COURSE HAS LESS THAN 15 YEARS OF RECORD. STREAMFLOW FORECAST PERIOD IS APRIL THROUGH SEPTEMBER.

THIS REPORT COMPILED IN COOPERATION WITH COLORADO EXPERIMENT STATION AND STATE ENGINEER OF COLORADO.

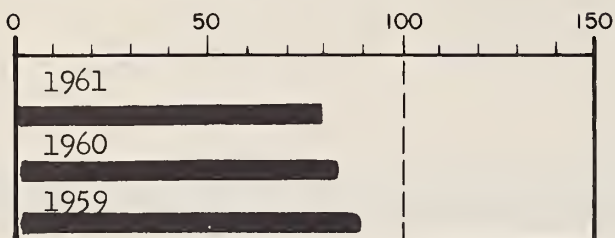
ISSUED BY: SOIL CONSERVATION SERVICE

K. W. Chalmers, State Conservationist,
Colorado

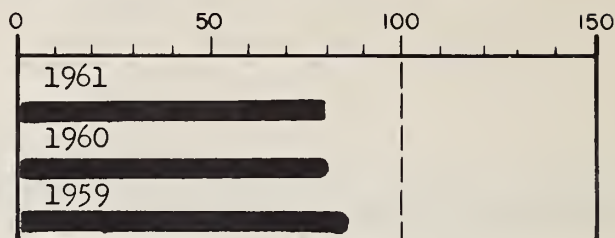
R. G. Wilson, Area Conservationist,
Littleton, Colorado

WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

CACHE LA POUFRE - BOULDER



CLEAR CREEK - UPPER SOUTH PLATTE



RESERVOIR STORAGE (1,000 AC. FT.)

RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	AVERAGE %
Horsetooth**	143.5	112.2	110.0	99.4
Windsor	18.6	11.2	12.4	9.8
Cache LaPoudre	9.5	7.2	8.4	6.6
Fossil Creek	11.6	9.5	9.1	7.1
Halligan	6.4	4.9	6.4	2.0
Chambers Lake	8.8	2.0	3.4	2.1
Cobb Lake	34.3	13.0	18.6	5.6
Black Hollow	8.0	2.1	3.8	3.4
Carter Lake**	108.9	85.6	80.2	64.8
Lake Loveland	14.3	7.8	9.8	5.7
Boyd Lake	44.0	33.2	3.8	17.5
Lone Tree	9.2	6.1	7.3	6.5
Mariano	5.4	4.0	5.1	2.6
Union	12.7	8.8	11.6	6.9
Eleven Mile	81.9	97.8	97.8	69.2
Cheeseman	79.0	70.0	70.0	49.2
Marston	18.9	12.0	16.0	14.7
Antero	33.0	15.7	15.7	14.4
Gross**	43.1	18.4	24.3	--
Milton	24.4	15.9	16.0	10.8
Standley	18.5	11.0	15.9	10.9
Marshall	10.3	2.8	7.3	2.2
Terry Lake	8.2	5.4	6.2	4.4

MEASURED FIRST OF MONTH

* 15 yr. Avg. 1943-57

** Less than 15 years

PRECIPITATION

STATION	FALL*		WINTER	
	Ave.	Dep.	Ave.	Dep.
			Dec.	Feb.
So. Platte	3.44	-1.13	1.79	-.29

* August through November

PRELIMINARY U.S. WEATHER BUREAU DATA
AVERAGE OF SELECTED STATIONS

SOIL MOISTURE

STATION	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE %
Feather	6.0	0.1	2.4	0.6
Laramie Road	7.0	NS	2.3	1.1
Beaver Dam	6.0	0.4	3.2	0.7
Two Mile	8.0	0.7	5.6	2.0
Guard Station	7.0	0.4	-	0.7
Alpine Camp	7.0	1.3	3.2	0.8
Hoop Creek	6.0	0.5	4.7	1.0
Alma	7.0	0.1	5.5	1.5
Kenosha Pass	7.0	0.1	2.5	1.4
Clear Creek	7.0	0.5	2.0	1.3
* All past data				

ALL PROFILES 4 FEET DEEP

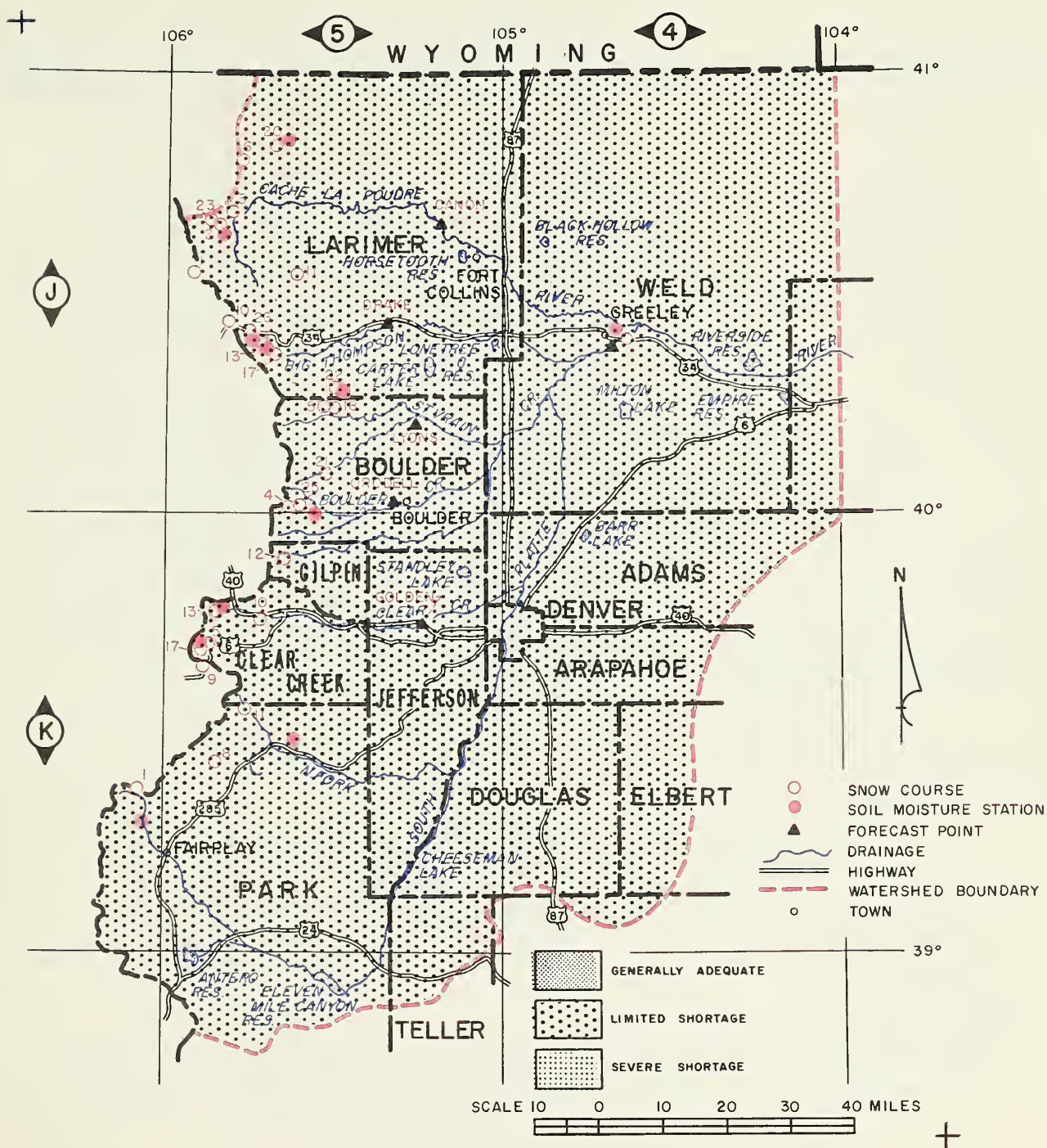
LOWER SO. PLATTE RES. STG. 1,000 A.F.			
RESERVOIR	Usab. Cap.	This Yr.	Avg.
Prewitt	32.8	21.4	19.8
Pt. of Rocks	70.0	70.0	58.2
Empire	37.7	30.9	29.1
Jackson	35.4	33.7	33.6
Riverside	57.5	56.1	47.9

STREAMFLOW FORECAST (1,000 A.F.)

STREAM AND STATION	FORECAST	THIS YEAR	15 YEAR
		Average	AVERAGE 1943-57
Cache La Poudre at Canon (1)	155	82	189
Big Thompson at Drake (2)	92	87	106
Saint Vrain at Lyons	62	76	84
Boulder at Orodell	48	87	55
Clear Creek at Golden (3)	109	81	137

- (1) Observed flow minus diversions from Michigan, Colorado and Laramie rivers, plus diversions for irrigation and municipal use above station.
- (2) Observed flow plus by-pass to power plants.
- (3) Observed flow minus diversions through Jones Tunnel.

SOUTH PLATTE RIVER WATERSHED IN COLORADO



SNOW		CURRENT INFORMATION			PAST RECORD		
SNOW COURSE	NO.	DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)		YEARS OF RECORD
					LAST YEAR	AVERAGE	
SOUTH PLATTE RIVER and TRIBUTARIES							
Cameron Pass	5J1	4/1	79	22.3	29.2	24.9	25
Chambers Lake	5J2	4/2	27	6.7	10.3	8.8	25
Big South	5J3	4/2	9	2.6	2.8	2.7	25
Wild Basin	5J5	3/30	45	11.1	9.7	15.0	25
Loveland Pass	5K5	3/31	44	15.3	16.4	15.8	25
Hoosier Pass	6K1	3/30	44	10.4	14.0	13.1	25
Lake Irene	5J10	3/30	56	14.1	19.9	22.9	23
Deadman Hill (a)	5J6	3/30	55	15.4	18.5	16.8	24
Hour Glass Lake	5J11	3/30	25	6.2	4.8	9.2	21
University Camp	5J8	3/29	56	16.5	23.2	24.5	23
Jefferson Creek	5K8	3/30	31	8.4	8.4	9.8	21
Hidden Valley	5J13	3/30	53	10.3	11.5	12.4	20
Grizzly Peak *	5K9	3/29	52	16.3	22.5	18.9	19
Red Feather	5J20	3/29	35	8.9	5.3	8.9	12
Deer Ridge	5J17	3/30	16	4.3	3.5	5.8	12
Copeland Lake	5J18	3/30	15	4.3	3.6	5.5	12
Empire	5K10	3/29	31	8.0	7.9	8.0	12
Geneva Park	5K11	3/31	11	2.6	1.9	4.3	12
Ward	5J21	3/30	30	7.5	5.4	7.4	11
Lost Lake	5J23	4/2	36	8.5	11.6	13.1	10
Long's Peak	5J22	4/1	42	7.3	10.1	11.9	9
Boulder Falls	5J25	3/29	50	11.6	11.1	15.4	8
Berthoud Falls	5K13	3/29	43	10.7	14.7	14.9	10
Two Mile	5J26	3/30	52	11.9	15.8	15.8	9
Loveland Lift No. 1	5K24	3/29	68	21.5	-	-	-
Baltimore	5K23	3/29	26	7.8	-	-	-
Pine Creek	5J31	3/30	15	5.2	-	-	-
* On adjacent drainage							
NS No survey							

This Report Prepared by
 Jack N. Washichek and Don W. McAndrew
 Soil Conservation Service
 Colorado State University
 Ft. Collins, Colorado

RETURN IF NOT DELIVERED

UNITED STATES

DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

Snow Survey
 Colorado State University
 Ft. Collins, Colorado

OFFICIAL BUSINESS

POSTAGE AND FEES PAID
 U.S. DEPARTMENT OF AGRICULTURE

**WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE
ARKANSAS RIVER WATERSHED IN COLORADO**
as of

APRIL 1, 1961

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

SNOW COVER

THE OUTLOOK FOR WATER SUPPLY ON THE ARKANSAS WAS MUCH IMPROVED BY SEVERAL MAJOR STORMS OCCURING DURING MARCH. THE SOUTHERN PART OF THE BASIN NOW HAS AN ABOVE NORMAL SNOW PACK. THE AREA AROUND MONARCH PASS ALSO RECEIVED A SUBSTANTIAL INCREASE IN SNOW PACK DURING THE LAST THIRTY DAYS. THE HEADWATERS AREA IS STILL SLIGHTLY BELOW NORMAL.

SOIL MOISTURE

SOIL MOISTURE AT THE HIGHER ELEVATIONS IS IMPROVED AND NOW ALMOST NORMAL. WARM WEATHER HAS CAUSED SOME MELTING OF SNOW WHICH BROUGHT THE SOIL MOISTURE UP CONSIDERABLY. SOIL MOISTURE ON THE PLAINS ALONG THE MAIN STEM OF THE ARKANSAS IS REPORTED AS GOOD. OTHER AREAS ARE REPORTING FAIR TO GOOD.

RESERVOIR STORAGE

RESERVOIR STORAGE IS POOR. PRACTICALLY ALL RESERVOIRS CONTAIN LESS THAN LAST YEAR AND MUCH BELOW AVERAGE. JOHN MARTIN RESERVOIR CONTAINS ONLY 20,900 ACRE FEET COMPARED TO A NORMAL OF 55,400 ACRE FEET.

STREAMFLOW

RUNOFF PROSPECTS ARE MUCH BRIGHTER NOW THAN A MONTH AGO. THE SOUTHERN TRIBUTARIES ARE NOW EXPECTED TO FLOW NEARLY NORMAL. THE MAIN STEM IS BEING FORECAST AT 275,000 ACRE FEET AT SALIDA WHICH IS 81% OF NORMAL. IF SNOWFALL DURING APRIL IS ABOVE NORMAL, THERE IS A GOOD POSSIBILITY STREAMFLOW WILL BE NORMAL THROUGHOUT THE BASIN.

AVERAGE WATER CONTENT IS COMPUTED ON 15-YEAR BASIS (1943-57). ALL YEARS OF RECORD ARE USED WHEN A SNOW COURSE HAS LESS THAN 15 YEARS OF RECORD. STREAMFLOW FORECAST PERIOD IS APRIL THROUGH SEPTEMBER.

THIS REPORT COMPILED IN COOPERATION WITH COLORADO EXPERIMENT STATION AND STATE ENGINEER OF COLORADO.

ISSUED BY: SOIL CONSERVATION SERVICE

K. W. Chalmers, State Conservationist,
Colorado

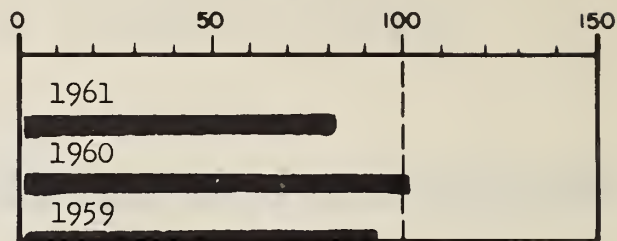
Dearl B. Beach, Area Conservationist,
Colorado Springs, Colorado
Will D. McCorkle, Area Conservationist,
Lamar, Colorado

WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

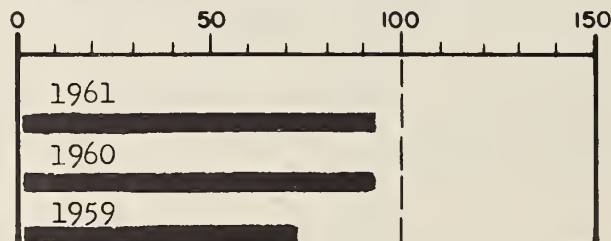
ARKANSAS ABOVE CADDOA DAM



ARKANSAS BELOW CADDOA DAM



PURGATOIRE - CUCHARAS - HUERFANO



RESERVOIR STORAGE (1,000 AC. FT.)

RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	AVERAGE
* 15 yr. Avg. 1943-57				
Twin Lakes	57.9	9.3	10.7	22.7
Sugar Loaf	17.4	1.4	3.1	8.1
Clear Creek	11.4	5.5	8.2	5.8
Meredith	41.9	6.1	26.0	14.5
Horse Creek	26.9	0	0	7.3
Adobe Creek	61.6	0	0	22.0
Cucharas	40.0	2.1	1.2	4.5
John Martin	366.6	20.9	20.9	58.8
Model	15.0	5.1	3.4	2.5
Great Plains	150.0	22.9	55.4	50.8

* 15 yr. Avg. 1943-57

MEASURED FIRST OF MONTH

SOIL MOISTURE

STATION	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE
* All past data				
Leadville	7.0	0.4	2.7	0.9
Twin Lakes	5.0	2.5	6.0	2.7
Garfield	7.0	3.2	2.9	2.7
King	8.0	2.7	2.6	3.2
LaVeta Pass	8.0	7.4	7.4	3.7

ALL PROFILES 4 FEET DEEP

PRECIPITATION

STATION	FALL		WINTER	
	AVE.	% DEP.	AVE.	DEP.
Arkansas	4.76	.08	2.41	.05

* August through November

PRELIMINARY U.S. WEATHER BUREAU DATA
AVERAGE OF SELECTED STATIONS

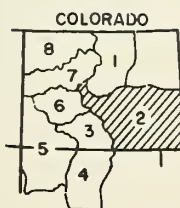
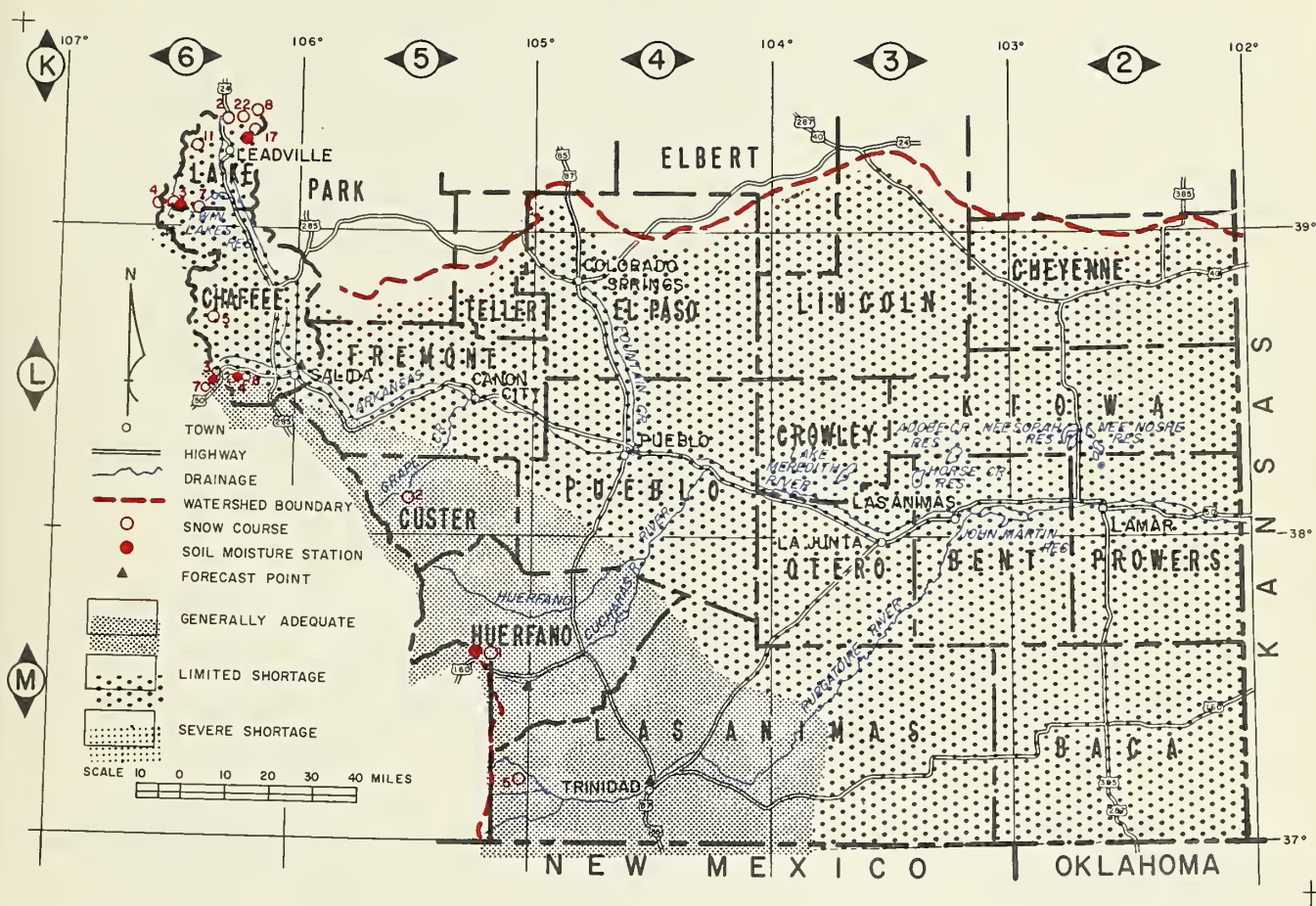
STREAMFLOW FORECAST

(1000 A.F.)

STREAM AND STATION	FORECAST	THIS YEAR % AVERAGE	15 YEAR AVERAGE 1943-57
Arkansas at Salida (1)	275	81	339
Arkansas at Pueblo (1)	281	82	342
Cucharas nr LaVeta	14	100	14
Purgatoire at Trinidad	42	80	52

(1) Observed flow plus change in storage in Clear Creek, Twin Lakes, and Sugar Loaf Reservoirs minus diversions through Busk-Ivanhoe and Twin Lake Tunnels and Ewing, Fremont Pass, Wurtz and Columbine Ditches.

ARKANSAS RIVER WATERSHED IN COLORADO



SNOW

SNOW COURSE	NO.	CURRENT INFORMATION			PAST RECORD		
		DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)		YEARS OF RECORD
					LAST YEAR	AVERAGE	
ARKANSAS RIVER							
Tennessee Pass	6K2	3/28	33	8.6	11.2	10.0	25
Twin Lakes Tunnel	6K3	3/28	28	6.8	10.2	10.9	25
LaVeta Pass*	5M1	3/28	32	10.0	7.5	8.1	25
Four Mile Park	6K7	3/28	15	4.5	4.5	4.0	25
Fremont Pass	6K8	3/30	47	14.3	19.6	16.9	25
Garfield	6L8	3/28	57	14.9	10.2	-	-
Monarch Pass	6L4	3/29	70	18.4	17.7	18.6	20
St. Elmo (a)	6L5	3/30	44	9.7	11.2	12.3	11
Timberline	6K11	NS			19.2	22.0	12
East Fork	6K17	3/30	24	7.2	11.6	10.7	9
Westcliffe	5L2	3/30	42	8.2	4.2	5.3	8
Bourbon	5M5	3/29	44	9.7	9.7	8.2	5
Tomichi	6L7	3/28	39	10.4	12.5	-	-
Cooper Hill	6K23	3/26	37	8.6	17.4	-	-

* On adjacent drainage
(a) Air observed
NS No survey

This Report Prepared by
Jack N. Washchek and Don W. McAndrew
Soil Conservation Service
Colorado State University
Ft. Collins, Colorado

RETURN IF NOT DELIVERED

UNITED STATES
DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

Snow Survey
Colorado State University
Ft. Collins, Colorado

OFFICIAL BUSINESS

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF AGRICULTURE

UPPER RIO GRANDE RIVER WATERSHED IN COLORADO

as of
APRIL 1, 1961

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

SNOW COVER

THE APRIL 1 SNOW SURVEY MEASUREMENTS INDICATE ONE OF THE LARGEST SNOW PACK INCREASES ON RECORD DURING THE MONTH OF MARCH. THE SNOW PACK INCREASED FROM A NEAR CRITICAL 40% OF AVERAGE LAST MONTH TO A MORE FAVORABLE 82% OF THE 1943-57 AVERAGE. THE ALAMOSA RIVER DRAINAGE HAS A SIMILAR 88% OF NORMAL SNOW COVER WHILE THE CONEJOS RIVER DRAINAGE IS SLIGHTLY LESS WITH 62% OF AVERAGE SNOW COVER.

SOIL MOISTURE

THE HIGH MOUNTAIN SOIL MOISTURE IS MUCH DRIER THAN NORMAL FOR THIS PERIOD, WITH THE EXCEPTION OF THE SANGRE DE CRISTO RANGE WHICH IS ALMOST AT FIELD CAPACITY. THE VALLEY SOIL MOISTURE IS REPORTED TO BE IN FAIR TO GOOD CONDITION.

RESERVOIR STORAGE

THE WATER STORAGE IN THE MAJOR RESERVOIRS SUPPLYING THE SAN LUIS VALLEY IS ABOUT HALF OF LAST YEAR AND ONLY ABOUT 67% OF AVERAGE.

STREAMFLOW

THE APRIL THROUGH SEPTEMBER RUNOFF IS EXPECTED TO BE 70 TO 80% OF NORMAL ON THE WEST SIDE OF THE SAN LUIS VALLEY AND A NEAR NORMAL 96% IN THE SANCHEZ SOIL CONSERVATION DISTRICT AREA. IF WE CONTINUE TO HAVE ABOVE NORMAL SNOW FALL DURING THE MONTH OF APRIL IT WOULD HELP TO INSURE AN ADEQUATE WATER SUPPLY THIS SUMMER.

AVERAGE WATER CONTENT IS COMPUTED ON 15-YEAR BASIS (1943-57). ALL YEARS OF RECORD ARE USED WHEN A SNOW COURSE HAS LESS THAN 15 YEARS OF RECORD. STREAMFLOW FORECAST PERIOD IS APRIL THROUGH SEPTEMBER.

THIS REPORT COMPILED IN COOPERATION WITH COLORADO EXPERIMENT STATION AND STATE ENGINEER OF COLORADO.

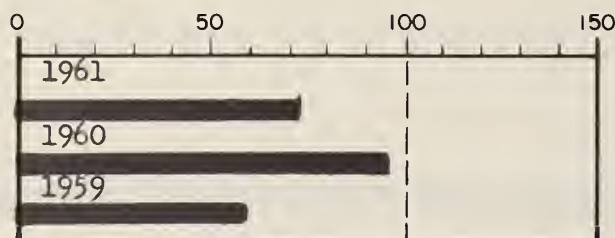
ISSUED BY: SOIL CONSERVATION SERVICE

K. W. Chalmers, State Conservationist,
Colorado

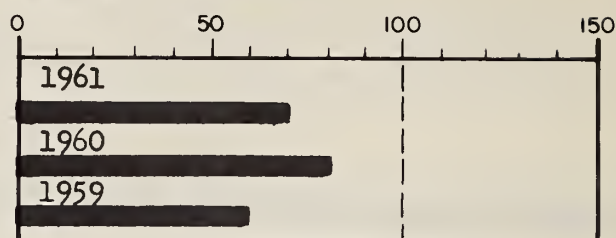
J. P. Sexton, Jr., Area Conservationist,
Monte Vista, Colorado

WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

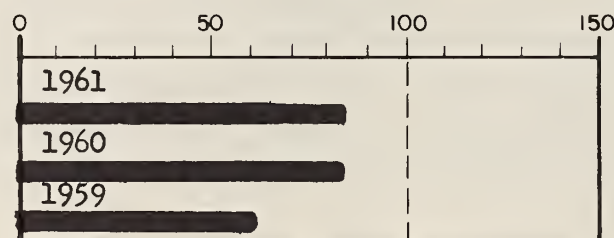
RIO GRANDE



ALAMOSA - CONEJOS



SANGRE DE CRISTO STREAMS



RESERVOIR STORAGE (1,000 AC. FT.)

RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	AVERAGE *
Rio Grande	45.8	7.9	14.0	12.6
Santa Maria	45.0	3.7	4.4	7.8
Sanchez	103.2	7.0	12.5	9.9
Terrace	17.7	3.2	6.9	3.0
Continental	26.7	4.9	4.5	7.8
Platoro	60.0	4.0	4.0	4.6**
*15 year 1943-57 Avg.				
** Shorter Period				

MEASURED FIRST OF MONTH

PRECIPITATION

STATION	FALL *		WINTER	
	Ave.	Dep.	Ave. Dec.-Feb.	Dep.
Rio Grande (Colo.)	1.07	-.24	1.05	-.43
*August through November				

PRELIMINARY U.S. WEATHER BUREAU DATA
AVERAGE OF SELECTED STATIONS

SOIL MOISTURE

STATION	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE *
Bristol View	7.0	-	--	1.7
Alberta Park	9.0	0.9	--	2.8
Mogote	7.0	0.6	4.7	1.7
LaVeta Pass	8.0	7.4	7.4	3.7
* All past data				

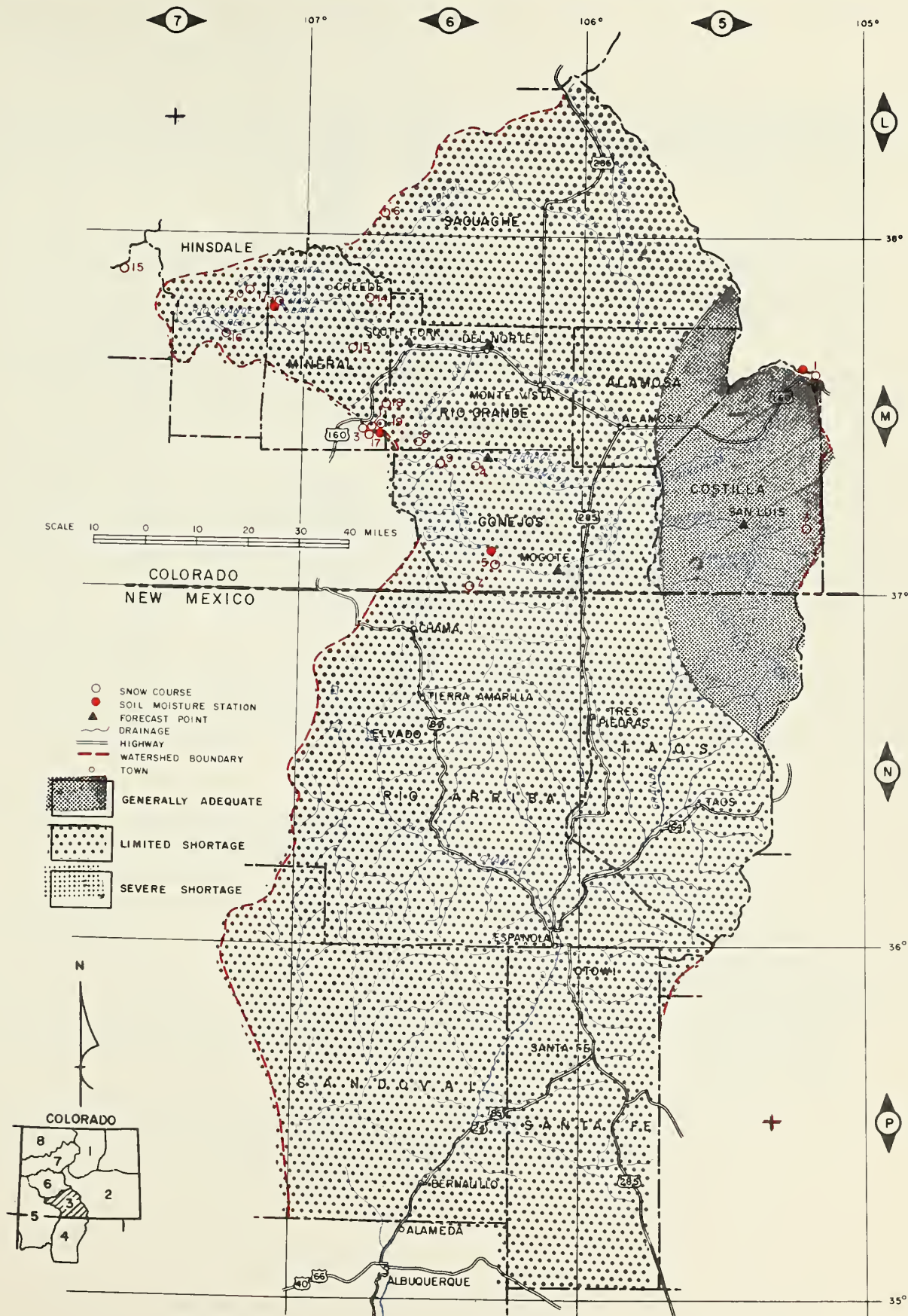
ALL PROFILES 4 FEET DEEP

STREAMFLOW FORECAST (1,000 A.F.)

STREAM AND STATION	FORECAST	THIS YEAR %	15 YEAR AVERAGE 1943-57
South Fork at South Fork	82	68	121
Rio Grande nr Del Norte 1	360	73	491
Alamosa above Terrace	55	77	71
Conejos nr Mogote	160	81	197
Culebra at San Luis 2	23	96	24

- (1) Observed flow plus change in storage in Santa Maria, Rio Grande, and Continental Reservoir
- (2) Observed flow plus changes in storage in Sanchez Reservoir.

UPPER RIO GRANDE RIVER WATERSHED IN COLORADO



SNOW

SNOW COURSE	NO.	CURRENT INFORMATION			PAST RECORD		
		DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)		YEARS OF RECORD
					LAST YEAR	AVERAGE	
RIO GRANDE IN COLORADO							.
Wolf Creek Pass	6M1	3/31	87	19.5	32.5	30.5	25
Upper Rio Grande	7M16	3/30	39	9.0	7.7	7.3	25
Santa Maria	7M17	3/30	21	3.4	3.8	4.7	22
Pool Table	5M14	3/29	33	5.9	7.8	5.8	12
Lake Humphreys	6M15	3/28	24	4.1	6.2	5.9	12
Cochetopa Pass	6L6	3/28	24	6.2	6.5	5.4	12
Red Mountain Pass *	7M15	3/31	98	29.6	36.3	31.9	10
Porcupine	7M20	3/28	39	8.4	14.0	11.6	9
Wolf Creek Summit *	7M17	3/30	102	24.7	37.9	29.0	10
Hiway	6M19	3/30	88	20.9	33.8	27.5	5
Pass Creek	6M18	3/31	43	8.3	11.6	11.1	5
ALAMOSA RIVER							
Silver Lakes	6M4	3/29	39	6.7	4.6	6.1	24
Summitville (a)	6M6	4/4	96	16.9	28.2	20.5	21
CONEJOS RIVER							
River Springs	6M5	3/30	28	6.2	5.8	7.3	24
Cumbres Pass (a)	6M7	3/29	56	12.5	18.8	20.2	25
Platoro	6M9	NS			NS	17.4	11
SANGRE DE CRISTO RANGE (Colo)							
LaVeta Pass	5M1	3/28	32	10.0	7.5	8.1	25
Culebra	5M3	3/30	37	9.3	9.2	9.9	21
* On adjacent drainage							
(a) Air observed							
NS No survey							

This Report Prepared by
 Jack N. Washichek and Don W. McAndrew
 Soil Conservation Service
 Colorado State University
 Ft. Collins, Colorado

RETURN IF NOT DELIVERED

UNITED STATES
 DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

Snow Survey
 Colorado State University
 Ft. Collins, Colorado

OFFICIAL BUSINESS

POSTAGE AND FEES PAID
 U.S. DEPARTMENT OF AGRICULTURE

**WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE**

RIO GRANDE RIVER WATERSHED IN NEW MEXICO

as of

APRIL 1, 1961

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

SNOW COVER

SNOW SURVEYS ALONG THE RIO GRANDE IN COLORADO AND NORTHERN NEW MEXICO INDICATE A NEAR RECORD SNOW PACK BUILD UP FOR THE PAST MONTH. THE SNOW PACK IMPROVED FROM 40 TO 82% OF NORMAL ON THE HEADWATERS IN COLORADO, AND GREATLY INCREASED FROM 50 TO 120% OF AVERAGE ON THE MAIN STEM IN NEW MEXICO. THE PECOS AND CANADIAN RIVER DRAINAGES ARE IN EXCELLENT CONDITION WITH 120 TO 180% OF NORMAL SNOW COVER.

SOIL MOISTURE

SOIL MOISTURE IN THE HEADWATER AREA IS MUCH DRIER THAN NORMAL FOR THIS DATE. MOUNTAIN SOIL MOISTURE IS NEAR NORMAL TO SLIGHTLY ABOVE ALONG THE MAIN STEM IN THE NORTHERN NEW MEXICO AREA. VALLEY SOIL MOISTURE ALONG THE MIDDLE RIO GRANDE IS REPORTED AS FAIR.

RESERVOIR STORAGE

WATER STORED IN RESERVOIRS ALONG THE RIO GRANDE IS STILL CONSIDERABLY BELOW NORMAL. STORAGE ON THE PECOS AND CANADIAN DRAINAGES IS STILL EXCELLENT AND WILL VIRTUALLY INSURE A GOOD WATER SUPPLY TO WATER USERS LOCATED IN THESE DRAINAGES.

STREAMFLOW

THE RIO GRANDE MARCH THROUGH JULY RUNOFF IS FORECAST 55 TO 71% OF NORMAL THIS YEAR. THE RIO CHAMA WILL SIMILARLY HAVE A 71% OF NORMAL WATER SUPPLY THIS SEASON. THE PECOS RIVER AND STREAMS WITH HEADWATERS IN THE SANGRE DE CRISTO RANGE WILL BE NEAR NORMAL THIS YEAR.

AVERAGE WATER CONTENT IS COMPUTED ON 15-YEAR BASIS (1943-57). ALL YEARS OF RECORD ARE USED WHEN A SNOW COURSE HAS LESS THAN 15 YEARS OF RECORD. STREAMFLOW FORECAST PERIOD IS MARCH THROUGH JULY.

THIS REPORT COMPILED IN COOPERATION WITH COLORADO EXPERIMENT STATION, STATE ENGINEER OF COLORADO AND STATE ENGINEER OF NEW MEXICO.

ISSUED BY: SOIL CONSERVATION SERVICE

**R. A. Young, State Conservationist,
New Mexico**

**H. M. Cavett, Area Conservationist,
Sante Fe, New Mexico**

WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

RESERVOIR STORAGE (1,000 AC. FT.)

RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	AVERAGE *
Elephant Butte	2206.8	355.2	553.3	581.2
Caballo	344.0	83.2	96.2	155.7
El Vado	194.5	6.5	14.3	34.9
Alamogordo	122.1	122.1	100.0	47.4
McMillan-Avalon	37.0	36.0	22.0	13.7
Red Bluff (Tex)	307.0	122.0	75.2	87.1
Conchas	600.0	279.4	329.9	262.5

* 15 year avg. 1943-57 MEASURED FIRST OF MONTH

PRECIPITATION

STATION	FALL*		WINTER	
	AVE.	DEP.	AVE. Dec.-Feb.	DEP.
Upper Rio Grande	1.07	-.24	1.05	-.43
Middle Rio Grande	4.89	-1.18	1.82	-.39
Lower Rio Grande	3.31	-.88	2.00	-1.09

PRELIMINARY U.S. WEATHER BUREAU DATA
AVERAGE OF SELECTED STATIONS

* August through November

SOIL MOISTURE

STATION	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE *
Mogote (Colo)	7.0	0.6	4.7	1.7
Bristol View (Colo)	7.0	-	-	1.7
Alberta Park (Colo)	9.0	0.9	-	2.8
Chamita (New Mexico)	8.0	-	6.2	2.4
Bateman	6.7	1.7	1.0	4.5
Big Tesuque	3.7	0.9	1.9	3.4
Taos Canyon	3.3	3.0	3.1	2.2
Rio En Medio	3.5	0.2	0.3	0.3
Fenton Hill	6.5	6.5	6.5	-
Red Summit	7.8	0.7	0.2	0.8

Aqua Piedra 7.2 5.0 1.9 2.7 ALL PROFILES 4 FEET DEEP

* All past data

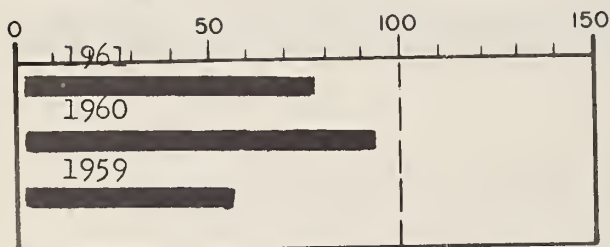
STREAMFLOW FORECAST(1000 A.F.)

STREAM AND STATION	FORECAST	THIS YEAR % AVERAGE	15 YEAR AVERAGE 1943-57
Rio Chama nr La Puente	150	71	210
Costilla at Costilla	24	89	27
Rio Grande at Otowi (10)	450	71	633
Rio Gr. at San Marcial (10)	240	55	434
Pecos at Pecos	50	104	48

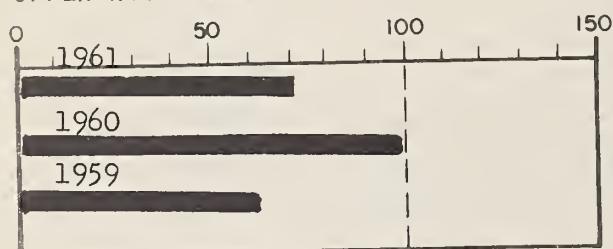
(10) Observed flow plus changes in storage in Santa Maria, Rio Grande, Continental, Terrace, Sanchez, Platoro and El Vado Reservoirs.

* Rio Grande at Otowi and Rio Grande at San Marcial ave. Mar-July inclusive.

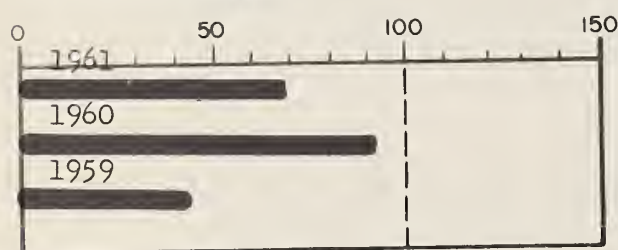
RIO CHAMA



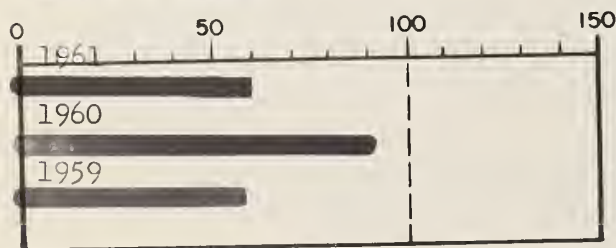
UPPER RIO GRANDE



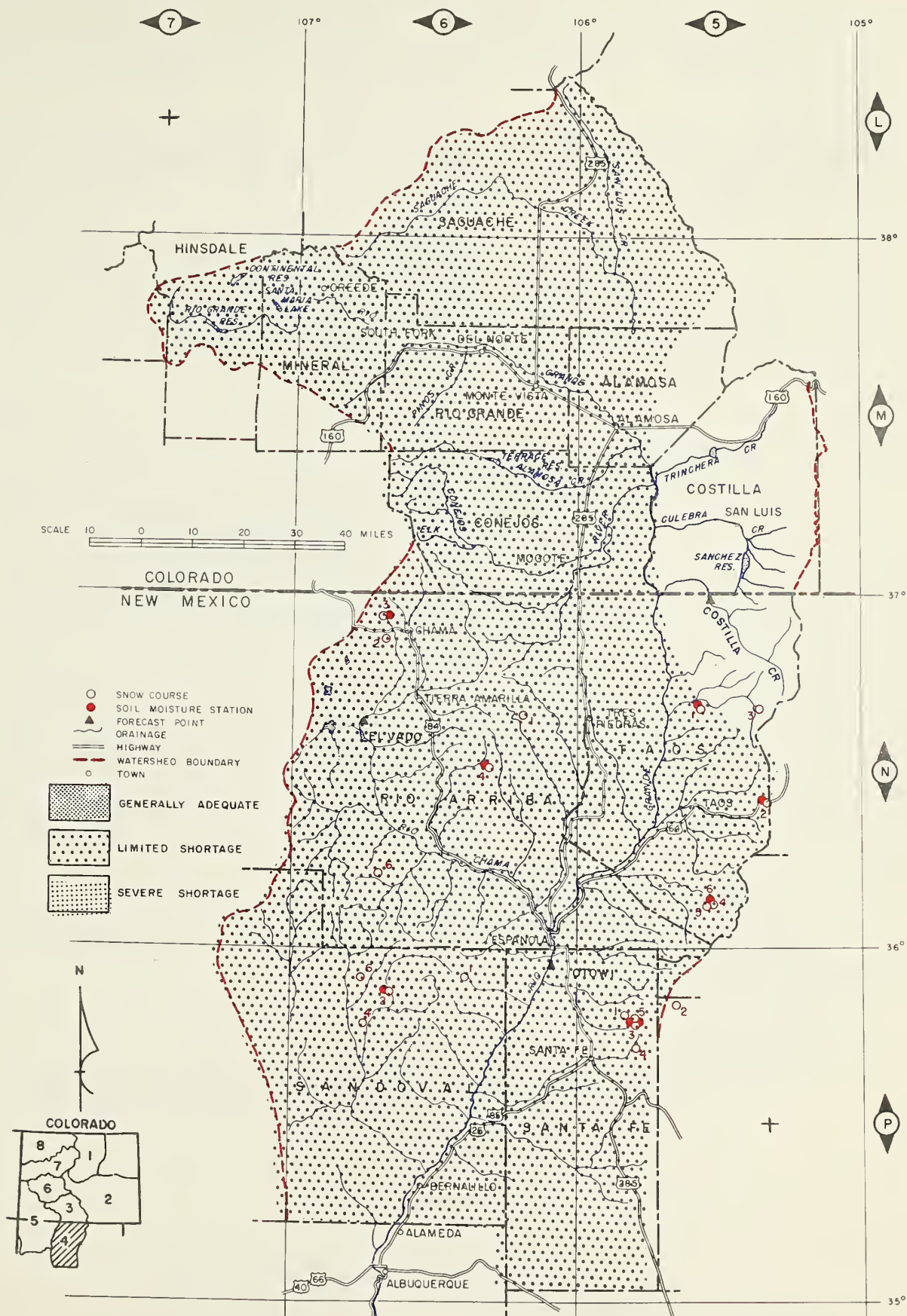
MIDDLE RIO GRANDE



LOWER RIO GRANDE



RIO GRANDE RIVER WATERSHED IN NEW MEXICO



SNOW

SNOW		CURRENT INFORMATION			PAST RECORD		
SNOW COURSE	NO.	DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)		YEARS OF RECORD
					LAST YEAR	AVERAGE	
RIO GRANDE (Colorado)							
Wolf Creek Pass	6M1	3/31	87	19.5	32.5	30.5	25
Upper Rio Grande	7M16	3/30	39	9.0	7.7	7.3	25
Santa Maria	7M17	3/30	21	3.4	3.8	4.7	22
Pool Table	6M14	3/29	33	5.9	7.8	5.8	12
Lake Humphreys	6M15	3/28	24	4.1	6.2	5.9	12
Cochetopa Pass	6L6	3/28	24	6.2	6.5	5.4	12
Porcupine (a)	7M20	3/28	39	8.4	14.0	11.6	9
Wolf Creek Summit	6M17	3/30	102	24.7	37.9	29.0	10
Hiway	6M19	3/30	88	20.9	33.8	27.5	5
Pass Creek	6M18	3/31	43	8.3	11.6	11.1	5
Silver Lakes	6M4	3/29	39	6.7	4.6	6.1	24
Summitville (a)	6M6	4/4	96	16.9	28.2	20.5	21
River Springs	6M5	3/30	28	6.2	5.8	7.3	24
Cumbres Pass (a)	6M7	3/29	56	12.5	18.8	20.2	25
Platoro	6M9	NS			NS	17.4	11
LaVeta Pass	5M1	3/28	32	10.0	7.5	8.1	25
Culebra	5M3	3/30	37	9.3	9.2	9.9	21
RIO GRANDE (New Mexico)							
Payrole (a)	6N1	NS			8.3	7.9	21
Chama Divide	6N2	3/30	14	1.5	1.6	1.7	21
Chamita	6N3	3/30	40	8.5	9.7	8.5	19
Bateman	6N4	3/28	40	17.3	13.3	11.5	11
Panchuela	5P2	3/30	11	2.7	1.9	1.4	22
Big Tesuque	5P3	3/28	17	5.9	6.9	4.5	19
Rio En Medio	5P5	3/28	28	6.6	11.8	5.7	11
Red River	5N1	3/28	21	5.5	5.1	6.9	24
Taos Canyon	5N2	3/28	12	2.4	4.0	5.1	22
Aspen Grove	5P1	3/28	12	4.6	6.1	2.7	24
Hematite Park	5N3	3/28	17	4.5	2.1	4.4	24
Tres Ritos	5N4	3/27	21	6.8	4.5	4.2	23
Cordova (a)	5N5	3/28	42	11.7	12.3	11.1	19
Elk Cabin	5P4	3/30	6	1.7	5.0	1.7	12
Quemazon	6P1	3/29	46	13.9	12.8	7.2	11
Fenton Hill	6P2	3/31	20	3.7	3.3	2.8	9

NS No Survey

(a) Air observed

RETURN IF NOT DELIVERED

UNITED STATES

DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

Snow Survey
Colorado State University
Ft. Collins, Colorado

OFFICIAL BUSINESS

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF AGRICULTURE

WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE
SAN MIGUEL - DOLORES - ANIMAS - SAN JUAN
WATERSHEDS IN COLORADO & NEW MEXICO
as of
APRIL 1, 1961

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

SNOW COVER

SNOW PACK DOUBLED IN THIS AREA DURING THE LAST THIRTY DAYS. LAST MONTH SOME SNOW COURSES WERE MEASURED AT ONLY 50% OF NORMAL, NOW SOME OF THE SAME COURSES ARE NEAR AVERAGE. THIS IS A VERY UNUSUAL HAPPENING BUT FORTUNATE FOR WATER USERS. THE ANIMAS DRAINAGE HAS SEVERAL SNOW COURSES ABOVE NORMAL.

SOIL MOISTURE

SOIL MOISTURE AT THE HIGH ELEVATIONS IS BETTER THAN LAST YEAR AND CONSIDERABLY BETTER THAN NORMAL. MELTING SNOW IN THE IRRIGATED LANDS HAS IMPROVED SOIL MOISTURE CONDITIONS. MOST AREAS ARE NOW REPORTING GOOD TO EXCELLENT SOIL MOISTURE CONDITIONS.

RESERVOIR STORAGE

RESERVOIR STORAGE IS SIMILAR TO LAST YEAR AND NEARLY NORMAL.

STREAMFLOW

STREAMFLOW IS EXPECTED TO FLOW JUST SLIGHTLY LESS THAN NORMAL. IF SNOW FALL IS ABOVE AVERAGE DURING APRIL MANY STREAMS IN THIS AREA WILL FLOW NORMAL OR BETTER. THERE WILL PROBABLY BE NO SEVERE SHORTAGES DURING THE IRRIGATION SEASON, HOWEVER, THERE STILL COULD BE SOME LOCAL SHORTAGES.

AVERAGE WATER CONTENT IS COMPUTED ON 15-YEAR BASIS (1943-57). ALL YEARS OF RECORD ARE USED WHEN A SNOW COURSE HAS LESS THAN 15 YEARS OF RECORD. STREAMFLOW FORECAST PERIOD IS APRIL THROUGH SEPTEMBER.

THIS REPORT COMPILED IN COOPERATION WITH COLORADO EXPERIMENT STATION, STATE ENGINEER OF COLORADO AND STATE ENGINEER OF NEW MEXICO.

ISSUED BY: SOIL CONSERVATION SERVICE

K. W. Chalmers, State Conservationist,
Colorado

J. P. Sexton, Area Conservationist,
Monte Vista, Colorado

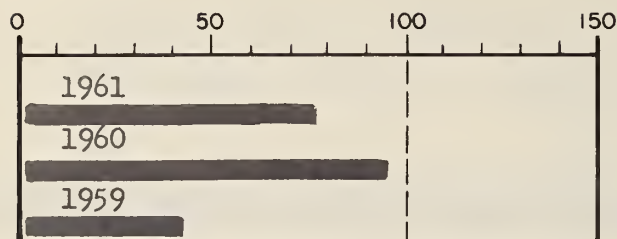
E. A. Nicholson, Area Conservationist *
Grand Junction, Colorado

R. A. Young, State Conservationist,
New Mexico

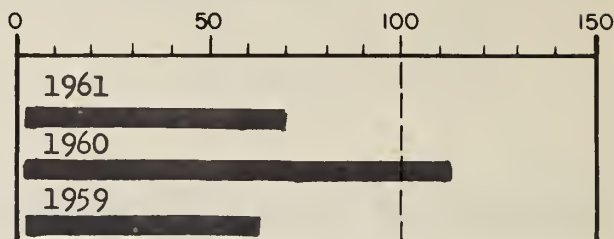
J. B. Christy, Area Conservationist
Albuquerque, N. M.

WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

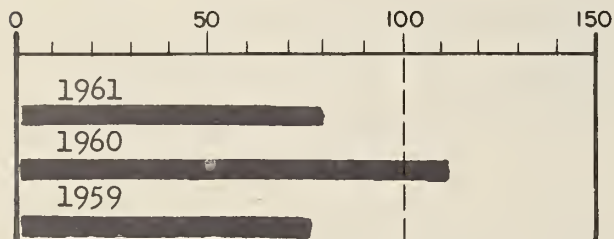
SAN JUAN



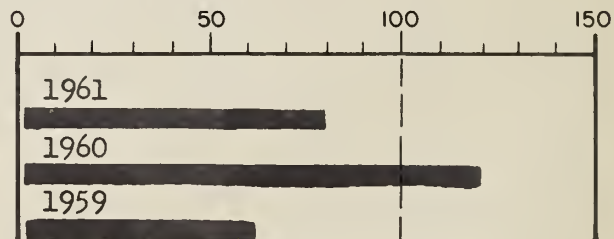
PIEDRA-PINOS-FLORIDA



DOLORES



ANIMAS-LA PLATA



RESERVOIR STORAGE (1,000 AC. FT.)

RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	AVERAGE
				*
Groundhog	21.7	5.0	3.5	7.0
Vallecito	126.3	44.4	44.3	40.7
* 15 Year Avg. 1943				

MEASURED FIRST OF MONTH

PRECIPITATION

STATION	FALL *		WINTER	
	AVE.	DEP.	AVE.	DEP.
			Dec.	Feb.
Dolores	4.20	-1.00	4.09	-.71
San Juan	6.92	-4.48	2.94	-1.83
*August through November				

PRELIMINARY U.S. WEATHER BUREAU DATA
AVERAGE OF SELECTED STATIONS

SOIL MOISTURE

STATION	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE
				*
Lizard Head	7.0	4.4	3.6	3.2
Dolores	7.0	4.8	3.2	2.6
Rico	7.0	3.9	3.3	2.5
Mineral Creek	7.0	NS	5.0	3.0
Molas Lake	7.0	NS	1.3	1.8
Cascade	7.0	NS	5.3	4.2
* All past data				

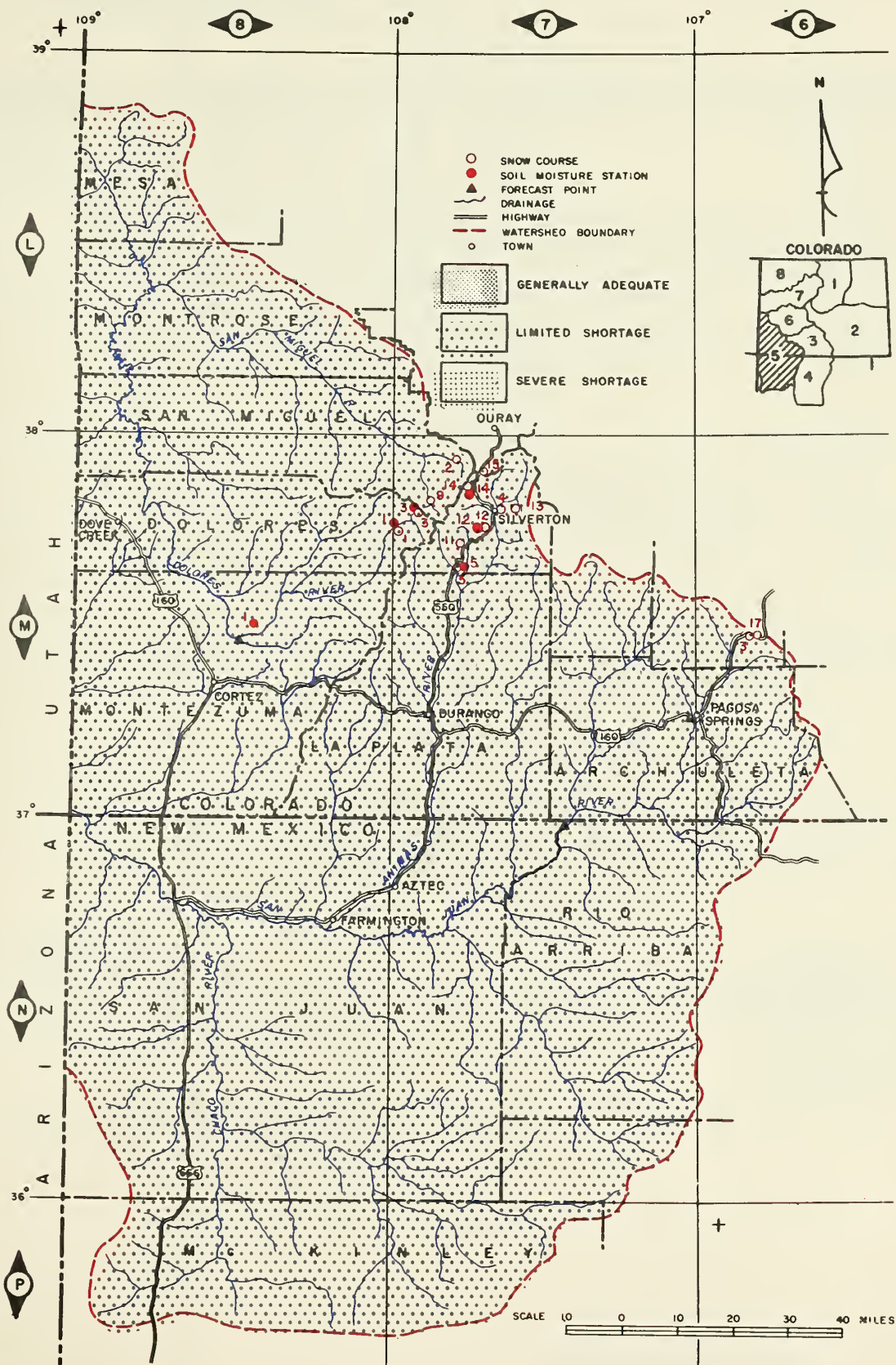
STREAMFLOW FORECAST (1,000 A.F.)

STREAM AND STATION	FORECAST	THIS YEAR AVERAGE	15 YEAR AVERAGE 1943-57
San Juan at Rosa, N. M.	440	75	587
Los Pinos nr Bayfield*	185	84	220
Florida nr Durango	53	85	62
Animas at Durango	413	87	475
LaPlata at Hesperus	25	90	28
Dolores at Dolores	259	93	279
Piedra Cr. nr Piedra	147	79	186

ALL PROFILES 4 FEET DEEP

* OBSERVED FLOW PLUS CHANGES IN
STORAGE IN VALLECITO RESERVOIR

SAN MIGUEL-DOLORES-ANIMAS-SAN JUAN RIVERS WATERSHEDS IN COLORADO & NEW MEXICO



SNOW

SNOW COURSE	NO.	CURRENT INFORMATION			PAST RECORD		
		DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)		YEARS OF RECORD
					LAST YEAR	AVERAGE	
SAN JUAN RIVER							
Wolf Creek Pass*	6M1	3/31	87	19.5	32.5	30.5	25
Upper San Juan	6M3	3/30	102	26.5	33.2	33.9	25
Wolf Creek Summit	6M17	3/30	102	24.7	37.9	29.0	10
Chama Divide*	6N2	3/30	14	1.5	1.6	1.7	21
Chamita*	6N3	3/30	40	8.5	9.7	8.5	19
ANIMAS RIVER							
Silverton Sub-Station	7M4	3/31	18	5.9	8.8	5.1	23
Ironton Park*	7M6	3/30	48	13.0	14.3	13.1	23
Cascade	7M5	3/31	44	11.4	13.0	12.1	25
Spud Mountain	7M11	3/31	79	21.8	25.8	25.0	10
Molas Lake	7M12	3/31	38	10.4	14.3	13.9	10
Howardville	7M13	NS			14.8	12.2	10
Mineral Creek	7M14	3/31	53	13.4	18.1	14.2	10
Ped Mountain Pass	6M19	3/31	98	29.6	36.3	31.9	10
DOLORES RIVER							
Rico	7M1	3/29	21	6.0	9.2	7.7	25
Telluride	7M2	3/27	27	7.2	4.5	6.8	25
Lizard Head	7M3	3/29	60	14.9	18.2	17.6	25
Trout Lake	7M9	3/30	45	11.0	17.0	14.0	12
* Adjacent drainage							
NS No survey							

This Report Prepared by
 Jack N. Washichek and Don W. McAndrew
 Soil Conservation Service
 Colorado State University
 Ft. Collins, Colorado

RETURN IF NOT DELIVERED

UNITED STATES

DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

Snow Survey
 Colorado State University
 Ft. Collins, Colorado

OFFICIAL BUSINESS

POSTAGE AND FEES PAID
 U.S. DEPARTMENT OF AGRICULTURE

**WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE**

GUNNISON RIVER WATERSHED IN COLORADO

as of
APRIL 1, 1961

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

SNOW COVER

WATER CONTENT OF THE MOUNTAIN SNOW PACK ON THE GUNNISON RIVER WATERSHED INCREASED IN A SLIGHTLY ABOVE NORMAL FASHION DURING THE MONTH OF MARCH. HOWEVER, THIS INCREASE ADDED TO THE 65% OF NORMAL MARCH 1 SNOWPACK RESULTED IN AN APRIL 1 SNOWPACK WHICH IS STILL ONLY 79% OF THE APRIL 1, 1943-57 AVERAGE. THE HIGH ELEVATION SNOWPACK SHOWED THE GREATEST INCREASE DURING THE PAST MONTH.

SOIL MOISTURE

THE APRIL 1 SOIL MOISTURE READING INDICATES THAT THE MOUNTAIN SOILS ARE DRIER THAN LAST YEAR AND ARE FAR BELOW THE NORMAL SOIL MOISTURE CONDITIONS. SOIL MOISTURE IN THE IRRIGATED AREAS IS REPORTED AS GOOD.

RESERVOIR STORAGE

TAYLOR PARK RESERVOIR CONTAINS 54% OF THE AVERAGE FOR THE FIRST OF APRIL AND 68% OF THE STORAGE AT THIS TIME LAST YEAR.

STREAMFLOW

STREAMFLOW IN THIS AREA WILL BE ABOUT 80-85% OF NORMAL FOR THE APRIL THROUGH SEPTEMBER PERIOD THIS YEAR. THE GUNNISON RIVER AT GRAND JUNCTION IS EXPECTED TO FLOW 1,100,000 ACRE FEET DURING APRIL THROUGH SEPTEMBER AND THE UNCOMPAHGRE RIVER AND SURFACE CREEK WILL FLOW ABOUT 85% OF THE 1943-57 AVERAGE.

AVERAGE WATER CONTENT IS COMPUTED ON 15-YEAR BASIS (1943-57). ALL YEARS OF RECORD ARE USED WHEN A SNOW COURSE HAS LESS THAN 15 YEARS OF RECORD. STREAMFLOW FORECAST PERIOD IS APRIL THROUGH SEPTEMBER.

THIS REPORT COMPILED IN COOPERATION WITH COLORADO EXPERIMENT STATION AND STATE ENGINEER OF COLORADO.

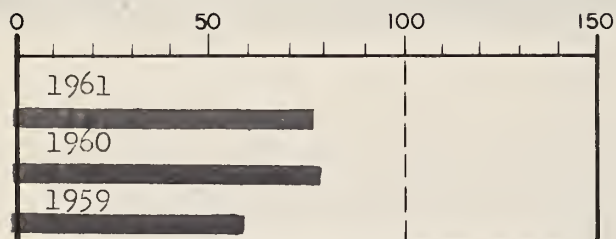
ISSUED BY: SOIL CONSERVATION SERVICE

K. W. Chalmers, State Conservationist,
Colorado

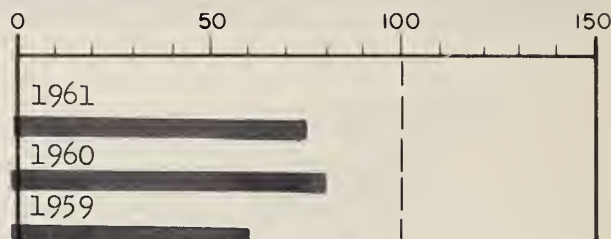
E. A. Nicholson, Area Conservationist,
Grand Junction, Colorado

WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

GUNNISON



UNCOMPAGHGRE



RESERVOIR STORAGE (1,000 AC. FT.)

RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	AVERAGE %
Taylor	106.2	34.0	49.9	62.2
*15 yr. average 1943-57				

MEASURED FIRST OF MONTH

PRECIPITATION

STATION	FALL* AVE. DEP.		WINTER AVE. DEP. Dec.-Feb.	
Gunnison	3.52	-1.10	1.93	-1.79
*August through November				

PRELIMINARY U.S. WEATHER BUREAU DATA
AVERAGE OF SELECTED STATIONS

SOIL MOISTURE

STATION	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE %
Mineral Creek	7.0	NS	5.0	3.0
Placita	8.0	0.1	2.2	3.6
Maroon	8.0	0.1	1.8	1.2
King	8.0	2.7	2.6	3.2
* All past data				

STREAMFLOW FORECAST (1000 A.F.)

STREAM AND STATION	FORECAST	THIS YEAR % AVERAGE	15 YEAR AVERAGE 1943-57
Gunnison nr. Grand Jct.	1100	79	1386
Uncompahgre at Colona	127	88	145
Surface Cr. at Cedaredge	15	83	18

ALL PROFILES 4 FEET DEEP

GUNNISON RIVER WATERSHED IN COLORADO



SNOW

SNOW		CURRENT INFORMATION			PAST RECORD		
SNOW COURSE	NO.	DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)		YEARS OF RECORD
					LAST YEAR	AVERAGE	
GUNNISON RIVER							
Crested Butte	6L1	3/29	47	11.1	10.4	15.3	25
Park Cone	6L2	3/29	38	8.1	10.3	12.3	24
Alexander Lake	7K3	3/31	66	18.7	22.0	22.8	24
Mesa Lakes *	7K4	3/27	55	13.6	20.5	17.4	24
Porphyry Creek	6L3	3/28	58	15.8	20.2	17.1	21
Monarch Pass *	6L4	3/29	70	18.4	17.7	18.6	20
North Lost Trail *	7K1	3/27	40	10.3	12.7	15.7	24
Trickle Divide *	7K5	3/30	77	22.6	26.8	28.9	21
Park Reservoir	7K6	3/30	72	20.3	23.4	26.8	21
Cochetopa Pass	6L6	3/28	24	6.2	6.5	5.4	12
McClure Pass	7K8	3/27	39	9.6	15.3	16.3	11
Mineral Creek *	7M14	3/31	53	13.4	18.1	14.2	10
Lake City	7M8	3/31	26	6.9	9.3	8.8	12
Tomichi	6L7	3/28	39	10.4	12.5	-	-
Blue Mesa	7L2	3/30	25	7.2	8.7	-	2
Keystone	7L3	3/28	56	12.0	-	-	-
Long Draw	7L4	3/28	33	7.4	-	-	-
Black Mesa Climatic Station	7L5	3/27	48	13.1	-	-	-
UNCOMPAHGRE RIVER							
Ironton Park	7M6	3/30	48	13.0	14.3	13.1	23
Telluride	7M2	3/27	27	7.2	4.5	6.8	25
Lizard Head	7M3	3/29	60	14.9	18.2	17.6	25
Trout Lake	7M9	3/27	45	11.0	17.0	14.0	12
Red Mountain Pass *	7M15	3/31	98	29.6	36.3	31.9	10
NS -- No Survey							
* -- On adjacent drainage							

This Report Prepared by
Jack N. Washichek and Don W. McAndrew
Soil Conservation Service
Colorado State University
Ft. Collins, Colorado

RETURN IF NOT DELIVERED
UNITED STATES
DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
Snow Survey
Colorado State University
Ft. Collins, Colorado
OFFICIAL BUSINESS

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF AGRICULTURE

WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE
COLORADO RIVER WATERSHED IN COLORADO

as of

APRIL 1, 1961

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

SNOW COVER

SNOW SURVEYS ON THE MAIN STEM OF THE COLORADO RIVER WATERSHED INDICATE THAT THE MOUNTAIN SNOW PACK HAS IMPROVED DURING THE LAST MONTH BUT IT IS STILL ONLY ABOUT 70% OF NORMAL. THE ROARING FORK DRAINAGE IS SLIGHTLY LOWER WITH A 60% OF NORMAL SNOW PACK.

SOIL MOISTURE

THE APRIL 1 SOIL MOISTURE READINGS INDICATE THAT THE MOUNTAIN SOILS ARE DRIER THAN NORMAL, EXCEPT IN THE HEADWATERS AREA NEAR BERTHOUD PASS WHERE THEY ARE REPORTED AS EXCELLENT. VALLEY SOIL MOISTURE HAS BEEN REPORTED IN FAIR TO GOOD CONDITION.

RESERVOIR STORAGE

WATER STORAGE IN RESERVOIRS ON THE UPPER COLORADO MAIN STEM IS BETTER THAN LAST YEAR AND SLIGHTLY BETTER THAN AVERAGE FOR THIS DATE.

STREAMFLOW

THE APRIL THROUGH SEPTEMBER FORECAST FOR THE COLORADO RIVER RANGES FROM 80% OF NORMAL ON THE MAIN STEM TO 67% ON THE WILLOW CREEK. NO SEVERE WATER SHORTAGES ARE ANTICIPATED THIS YEAR BUT SOME LOCALIZED AREAS MIGHT EXPERIENCE SLIGHT SHORTAGES.

AVERAGE WATER CONTENT IS COMPUTED ON 15-YEAR BASIS (1943-57). ALL YEARS OF RECORD ARE USED WHEN A SNOW COURSE HAS LESS THAN 15 YEARS OF RECORD. STREAMFLOW FORECAST PERIOD IS APRIL THROUGH SEPTEMBER.

THIS REPORT COMPILED IN COOPERATION WITH COLORADO EXPERIMENT STATION AND STATE ENGINEER OF COLORADO.

ISSUED BY: SOIL CONSERVATION SERVICE

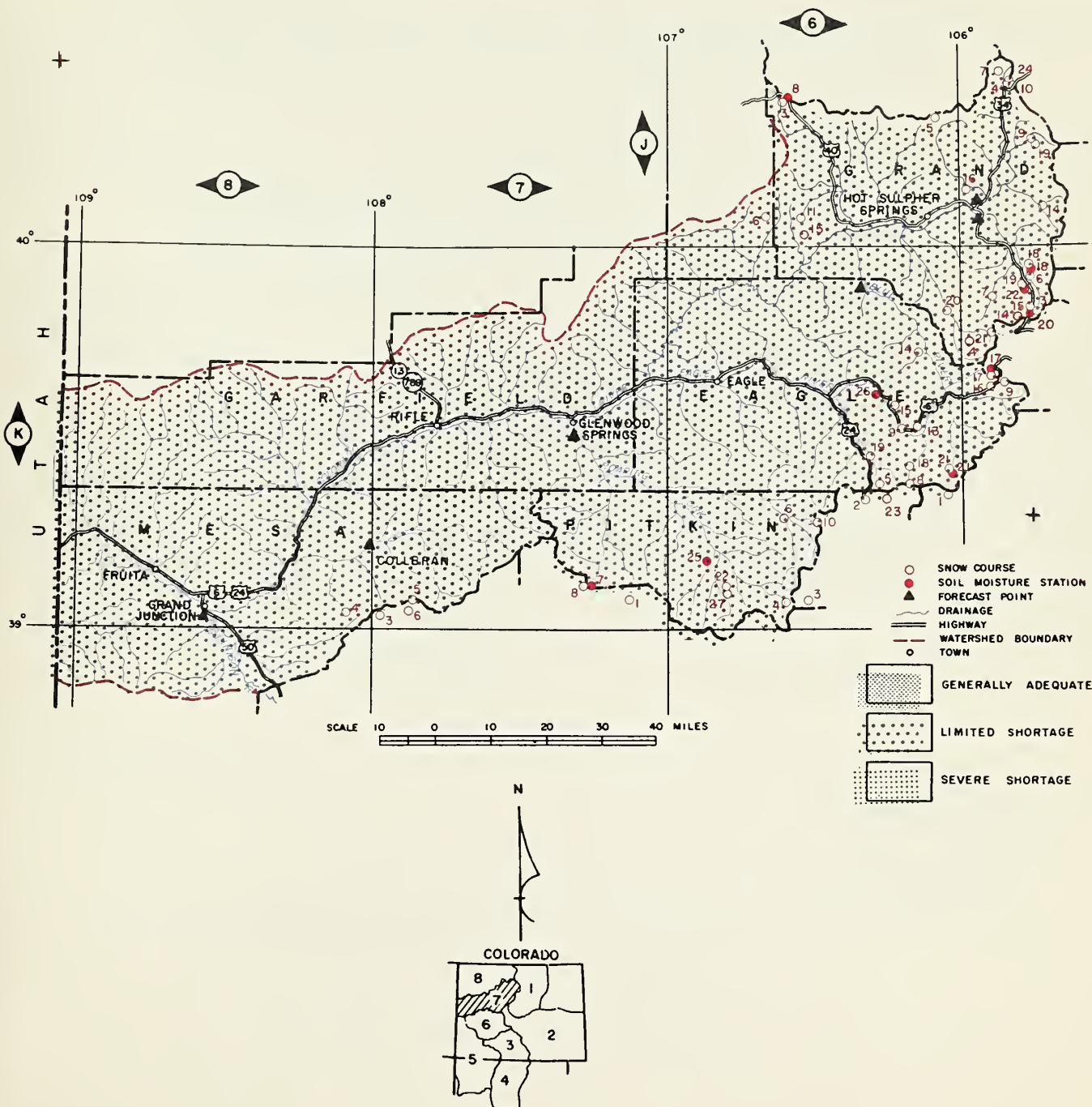
K. W. Chalmers, State Conservationist,
Colorado

E. A. Nicholson, Area Conservationist
Grand Junction, Colorado
M. H. Weaver, Area Conservationist,
Glenwood Springs, Colorado

SNOW

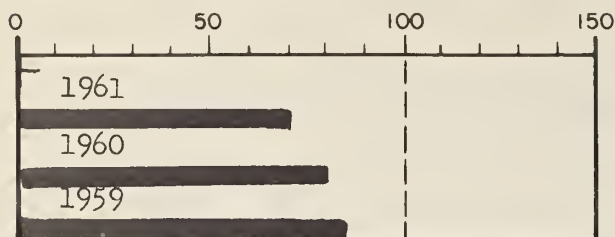
SNOW		CURRENT INFORMATION			PAST RECORD		
SNOW COURSE	NO.	DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)		YEARS OF RECORD ***
					LAST YEAR	AVERAGE	
COLORADO RIVER (UPPER)							
Phantom Valley	5J4	3/30	29	6.8	11.6	10.8	25
Hoosier Pass	6K1	3/30	44	10.4	14.0	13.1	25
Berthoud Pass	5K3	3/28	46	11.9	15.9	15.0	25
Tennessee Pass	6K2	3/28	33	8.6	11.2	10.0	25
M. Fork Camp Ground	5K4	3/29	33	8.2	9.4	9.7	25
Fiddlers Gulch	6K5	3/28	49	11.3	19.1	17.2	24
Lulu	5J7	3/26	45	10.5	18.6	17.6	23
Willow Creek Pass	6J5	3/28	38	9.8	14.4	13.6	23
North Inlet Grand Lake	5J9	3/31	21	5.3	8.0	10.3	23
Lake Irene	5J10	3/30	56	14.1	19.9	22.9	23
Arrow	5K6	3/28	35	9.7	13.1	11.6	23
Lapland	5K7	3/28	27	5.5	8.0	12.1	23
Fremont Pass	6K8	3/30	47	14.3	19.6	16.9	25
Lynx Pass	6K6	3/28	38	8.9	10.5	12.7	25
Shrine Pass	6K9	3/30	47	13.3	20.4	18.3	19
Grizzly Peak	5K9	3/29	52	16.3	22.5	18.9	19
Glen Mar Ranch	6K20	3/29	30	7.3	6.1	8.8	14
Monarch Lake	5J14	3/25	28	6.8	9.8	11.4	13
Granby	5J16	3/28	16	4.4	7.2	8.1	12
Grand Lake	5J19	3/31	22	4.6	6.8	9.2	12
Berthoud Summit	5K14	3/30	55	18.2	21.6	20.3	10
Gore Pass	6J11	3/28	30	6.6	8.4	9.2	12
Frisco	6K13	3/30	18	5.7	6.5	8.7	10
Snake River	5K16	3/31	16	4.6	7.4	9.3	10
Summit Ranch	6K14	3/29	24	5.7	5.8	8.8	10
Vail Pass	6K15	3/30	39	10.8	16.2	19.3	9
Pando	6K19	3/30	28	8.7	11.2	11.7	9
Kokomo	6K18	3/30	36	9.2	15.6	13.2	9
Milner Pass	5J24	3/30	37	8.4	15.0	14.4	9
Blue River	6K21	3/30	25	5.4	8.6	-	4
Jones Pass	5K21	3/28	50	12.6	16.4	-	4
Ranch Creek	5K18	3/28	29	6.9	10.3	-	4
Vasquez Creek	5K19	3/28	36	9.2	15.2	-	4
Cooper Hill	6K23	3/26	37	8.6	17.4	-	2
ROARING FORK RIVER							
Independence Pass Tunnel	6K4	3/29	44	10.9	19.9	18.7	25
North Lost Trail	7K1	3/27	40	10.3	12.7	15.7	24
Nast	6K6	3/29	19	2.8	3.3	6.1	24
Ivanhoe	6K10	3/28	53	10.9	17.5	18.5	14
McClure Pass	7K8	3/27	39	9.6	15.3	16.3	11
Lift	7K27	3/27	57	16.6	15.6	-	3
Aspen	7K22	3/27	45	10.1	19.6	-	2
PLATEAU CREEK							
Mesa Lakes	7K4	3/27	55	13.6	20.5	17.4	24
Trickle Divide	7K5	3/30	77	22.6	26.8	28.9	21
Alexander Lake *	7K3	3/31	66	18.7	22.0	22.8	24
Park Reservoir *	7K6	3/30	72	20.3	23.4	26.8	21
* On adjacent drainage							
** Courses with less than 15 years record in period 1943-57 have all years prior to 1957 averaged.							
NS No survey							

COLORADO RIVER WATERSHED IN COLORADO

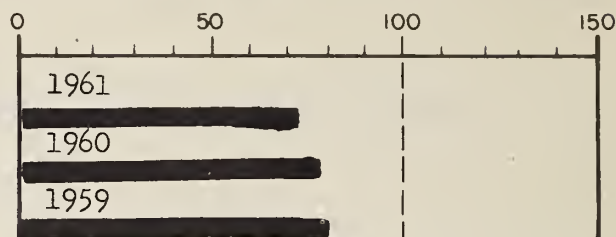


WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

UPPER COLORADO ABOVE GLENWOOD SPRINGS



LOWER COLORADO BELOW GLENWOOD SPRINGS



RESERVOIR STORAGE (1,000 AC. FT.)

RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	AVERAGE
Granby **	465.5	224.2	216.4	197.5
Green Mt.	146.9	60.2	57.6	57.7

* 1943-57

** Less than 15 years FIRST OF MONTH

PRECIPITATION

STATION	FALL		WINTER	
	AVE.	DEP.	AVE.	DEP.
Upper Colorado	3.72	-1.24	2.52	-1.87
Lower Colorado	3.52	-.65	1.77	-1.89

* August through November
FEDERAL BUREAU DATA
AVERAGE OF SELECTED STATIONS

SOIL MOISTURE

STATION	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE
Muddy Pass	8.0	0.7	4.9	1.8
Gore	7.0	0.5	0.7	0.8
Berthoud Pass	8.0	4.0	3.0	1.2
Vasquez Siphon	7.0	4.2	-	3.2
Ranch Creek	7.0	1.8	4.3	2.5
Vail	8.0	0.8	5.9	4.0
Blue River	7.0	0.1	2.4	1.1
Flacita	8.0	0.1	2.2	3.6
Maroon	8.0	0.1	1.8	1.2

* All past data

ALL PROFILES 4 FEET DEEP

STREAMFLOW FORECAST (1000 A.F.)

STREAM AND STATION	FORECAST	THIS YEAR	15 YEAR
		AVERAGE	AVERAGE 1943-57
Blue R.abv. Green Mt. Dam	200	69	290
Colo. R. nr. Granby (4)	186	79	235
Colo. R. at Glen. Spgs (5)	1220	79	1546
Roaring Fork at Gl. Spgs (6)	575	72	803
Plateau nr. Collbran	38	67	57
Williams Fk. nr Parshall	61	78	78
Willow Crk ab. Willow Crk.	29	67	44

- (4) Observed flow plus diversions by Adams tunnel and Grand River ditch plus change in storage in Granby Reservoir.
- (5) Observed flow plus the changes as indicated in (4) plus Moffat Ditch.
- (6) Observed flow plus diversion through Twin Lakes tunnel.

RETURN IF NOT DELIVERED

UNITED STATES

DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

Snow Survey
Colorado State University
Ft. Collins, Colorado

OFFICIAL BUSINESS

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF AGRICULTURE

WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE
**YAMPA, WHITE, & NORTH PLATTE
RIVERS WATERSHEDS IN COLORADO**
as of

APRIL 1, 1961

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

SNOW COVER

THE WINTER SNOW FALL INCREASED NORMALLY DURING THE MONTH OF MARCH AND STILL REMAINS BELOW AVERAGE. THE YAMPA AND WHITE RIVER DRAINAGES HAVE A 65-70% OF NORMAL SNOW PACK, AND THE NORTH PLATTE DRAINAGE IS SLIGHTLY BETTER WITH 85% OF NORMAL.

SOIL MOISTURE

MOUNTAIN SOIL MOISTURE IS BELOW AVERAGE AND FAR BELOW THAT OF LAST YEAR. THIS CONDITION WILL TEND TO REDUCE STREAMFLOW THIS SUMMER. VALLEY SOIL MOISTURE IS REPORTED AS FAIR.

STREAMFLOW

THE APRIL THROUGH SEPTEMBER STREAMFLOW FORECASTS IN THIS AREA RANGE FROM 60 TO 80% OF NORMAL. THE BELOW NORMAL STREAMFLOW COUPLED WITH THE DRY MOUNTAIN SOIL CONDITION MAY PRODUCE SOME WATER SHORTAGES IN THE DOWNSTREAM AREAS THIS SEASON.

AVERAGE WATER CONTENT IS COMPUTED ON 15-YEAR BASIS (1943-57). ALL YEARS OF RECORD ARE USED WHEN A SNOW COURSE HAS LESS THAN 15 YEARS OF RECORD. STREAMFLOW FORECAST PERIOD IS APRIL THROUGH SEPTEMBER.

THIS REPORT COMPILED IN COOPERATION WITH COLORADO EXPERIMENT STATION AND STATE ENGINEER OF COLORADO.

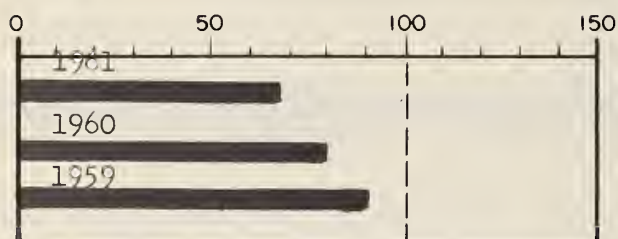
ISSUED BY: SOIL CONSERVATION SERVICE

K. W. Chalmers, State Conservationist,
Colorado

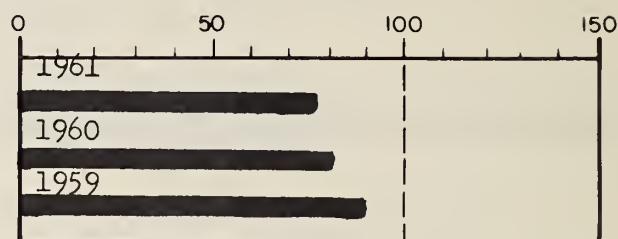
M. H. Weaver, Area Conservationist,
Glenwood Springs, Colorado

WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

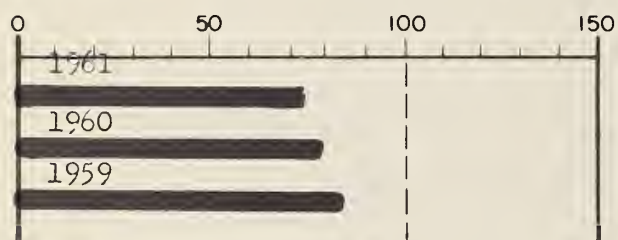
YAMPA



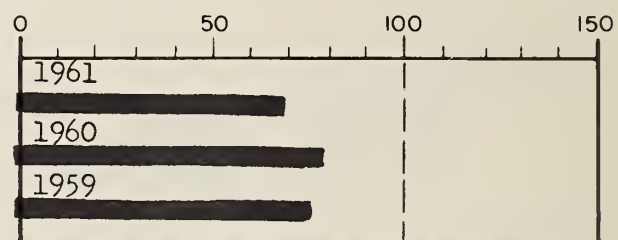
WHITE



LARAMIE



NORTH PLATE



SOIL MOISTURE

STATION	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE %
Muddy Pass	8.0	0.7	4.9	1.8
Willow Pass	7.0	0.6	5.9	2.2
Two Mile	8.0	0.7	5.6	2.0
Laramie Road	7.0	NS	2.3	1.3
Hahn's Peak	8.0	6.0	-	-
* All past years				

STREAMFLOW FORECAST (1,000 A.F.)

STREAM AND STATION	FORECAST	THIS YEAR % AVERAGE	15 YEAR AVERAGE 1943-57
Laramie at Jelm	65	58	113
Elk at Clark	170	79	215
Yampa at Steamboat Spgs.	196	69	283
White at Meeker	250	75	335
North Platte at Northgate	125	49	255
Little Snake at Lilly	245	70	350

ALL PROFILES 4 FEET DEEP

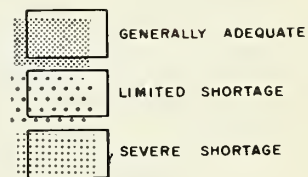
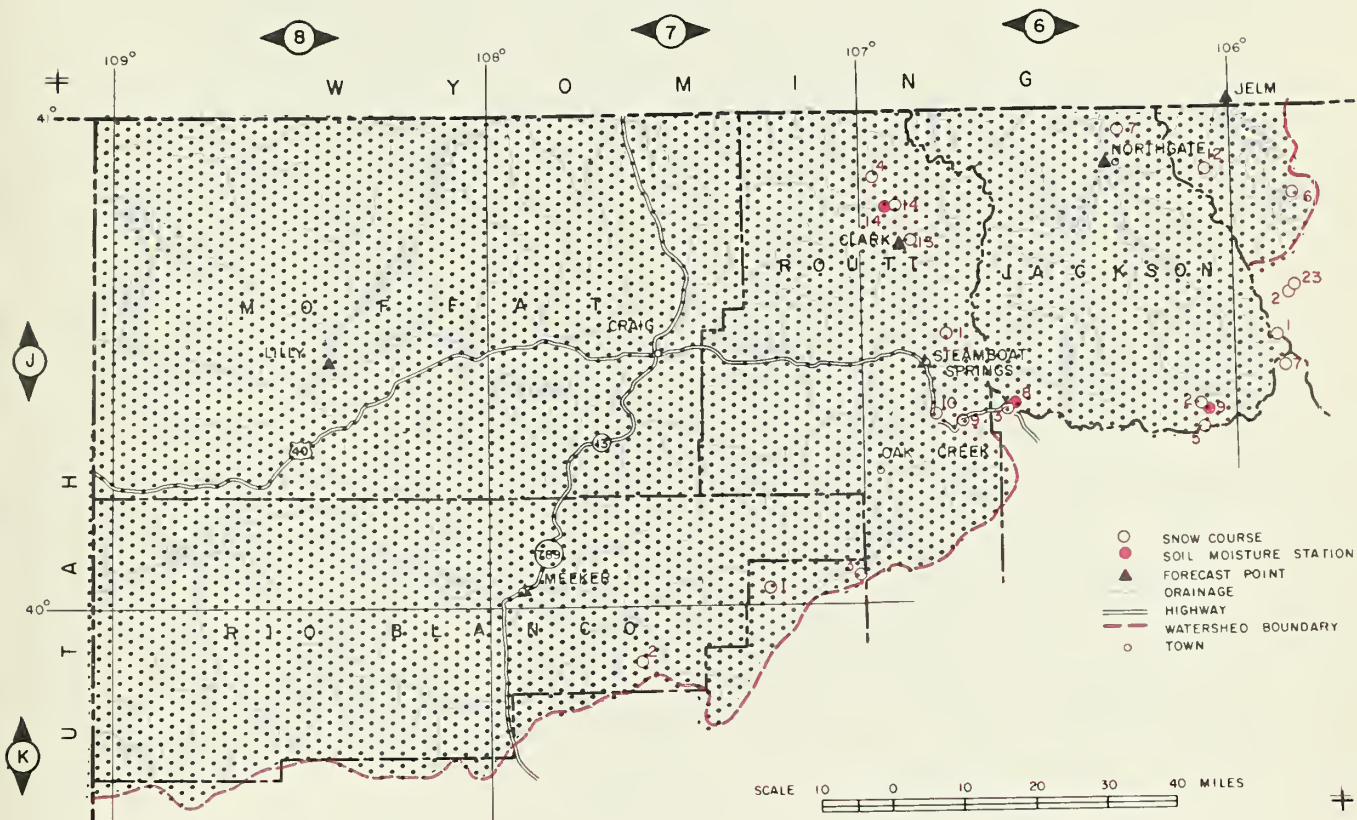
PRECIPITATION

STATION	FALL AVE. DEP.		WINTER Dec.-Feb.	
Yampa	5.12	-.48	2.98	-2.42
White	4.64	-1.76	2.00	-1.64
North Platte	3.20	-.24	.40	-.52

PRELIMINARY U.S. WEATHER BUREAU DATA
AVERAGE OF SELECTED STATIONS

* August through November

YAMPA, WHITE, & NORTH PLATTE RIVERS WATERSHEDS IN COLORADO



SNOW

SNOW COURSE	NO.	CURRENT INFORMATION			PAST RECORD		
		DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)		YEARS OF RECORD
					LAST YEAR	AVERAGE	
NORTH PLATTE RIVER							
Cameron Pass (a)	5J1	4/1	79	22.3	29.2	24.9	25
Park View	6J2	3/28	31	7.8	9.8	9.7	25
Columbine Lodge	6J3	3/30	61	17.2	21.5	24.7	25
Deadman Hill * (a)	5J6	3/30	55	15.4	18.5	16.8	24
Willow Creek Pass *	6J5	3/28	38	9.8	14.4	13.6	23
Roach *	6J12	NS			18.9	20.0	21
Northgate	6J7	3/31	20	4.4	7.3	6.6	11
McIntyre *	5J15	4/4	29	8.8	8.6	11.8	11
YAMPA RIVER							
Dry Lake	6J1	3/29	50	13.7	20.9	21.0	25
Columbine Lodge *	6J3	3/30	61	17.2	21.5	24.7	25
Elk River	6J4	3/29	45	12.8	14.5	18.2	25
Lynx Pass *	6J6	3/28	38	8.9	10.5	12.7	25
Rabbit Ears	6J9	3/30	65	19.5	30.9	28.4	7
Yampa View	6J10	3/30	38	9.9	16.0	18.1	8
Bear River	7J3	3/29	34	7.1	9.5	12.6	5
Clark	6J13	3/28	23	7.0	8.9	12.8	5
Hahn's Peak	6J14	3/28	34	9.2	-	-	-
WHITE RIVER							
Burro Mountain	7K2	3/28	52	13.0	15.9	18.6	24
Rio Blanco	7J1	3/30	37	11.8	17.4	16.7	25

* On adjacent drainage
(a) Air observed
NS No Survey

This Report Prepared by
Jack N. Washichek and Don W. McAndrew
Soil Conservation Service
Colorado State University
Ft. Collins, Colorado

RETURN IF NOT DELIVERED
UNITED STATES
DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
Snow Survey
Colorado State University
Ft. Collins, Colorado

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF AGRICULTURE

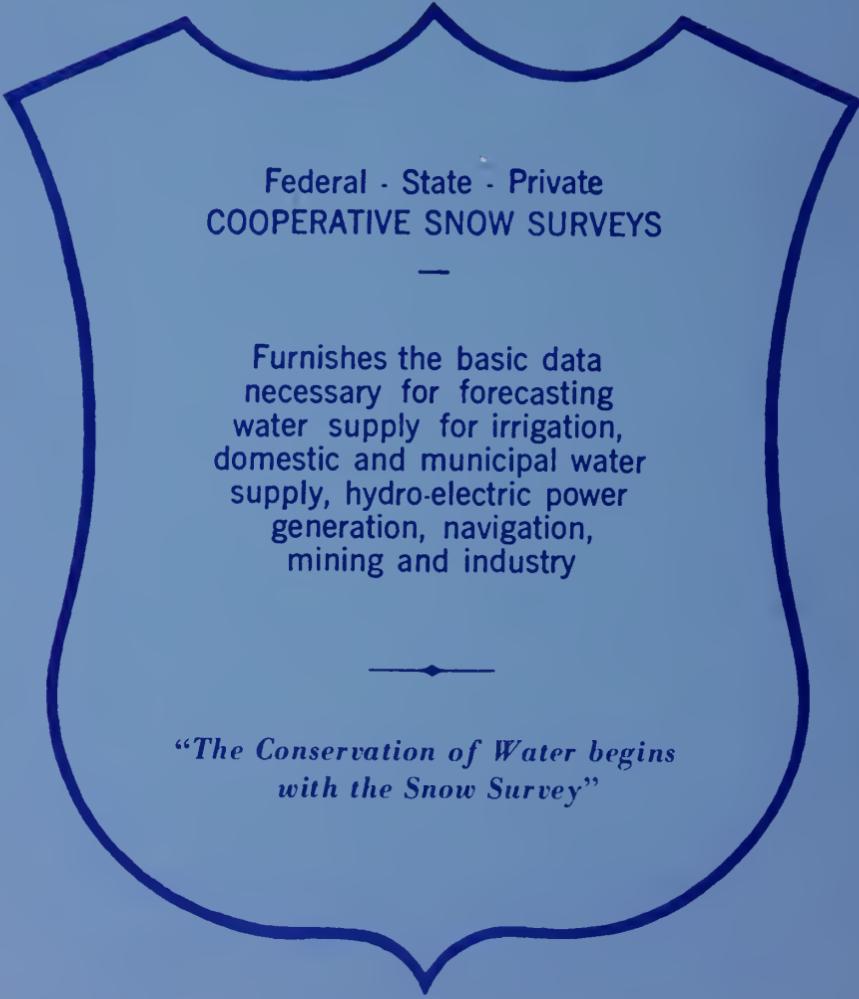
OFFICIAL BUSINESS

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
240 SOUTH HALL
COLORADO STATE UNIVERSITY
FORT COLLINS, COLORADO

POSTAGE AND FEES PAID
U. S. DEPARTMENT OF AGRICULTURE

FIRST CLASS MAIL

CHIEF, DIV OF WATERSHED MGMT RES
U. S. FOREST SERVICE, USDA
WASHINGTON 25, D. C.
B-S-W-A-R-P



Federal - State - Private
COOPERATIVE SNOW SURVEYS

Furnishes the basic data
necessary for forecasting
water supply for irrigation,
domestic and municipal water
supply, hydro-electric power
generation, navigation,
mining and industry

*"The Conservation of Water begins
with the Snow Survey"*